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ABSTRACT

This study was made to determine whether the Southern California Regional Occupational Center was attracting low-motivated students, to find ways to reach more such students, and to identify factors in the guidance program that contributed to its success. The project's objective was to develop a guidance model to better assist students in selecting courses most appropriate to their interests, needs, and abilities. Data were collected and analyzed for performance and attitude profile variables for 1,321 Center students and 9,121 high school juniors in the six school districts served by the Center. The primary factor identified to account for the success of the guidance program was the use of the Performance Profile data in assigning students to instructional programs. Findings related to the use of the Career Opportunity Programs, although insufficient in terms of recruitment of low motivation students, indicated that these programs do influence student course choice. A guidance model incorporating project findings has potential for predicting student success in a variety of vocational instructional settings. (MF)

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"PERFORMANCE AND ATTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL TRAINING"

PROJECT # REV. 19-20198-C062-71

FINAL REPORT

NOVEMBER 30, 1972

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OF 1968 PART C, SEC. 131 (b) OF PUBLIC LAW 90-576

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EL SEGUNDO UNIFIED SCHOOL DISTRICT
INGLEWOOD UNIFIED SCHOOL DISTRICT
PALOS VERDES PENINSULA UNIFIED SCHOOL DISTRICT
SOUTH BAY UNION HIGH SCHOOL DISTRICT
TORRANCE UNIFIED SCHOOL DISTRICT

WITHOUT THEIR PROFESSIONAL CONTRIBUTIONS AND DEDICATION WE COULD NOT HAVE REALIZED THE SUCCESSFUL FINALIZATION OF THIS PROJECT.

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PART I

STATEMENT OF PURPOSE

PART I. STATEMENT OF PURPOSE

SECTION A. INTRODUCTION

Vocational education is finally getting the attention it has long deserved. The view that school prepares a student for life has been vocally supported for a long time, but to bring that view down to specifics -- development of usable skills and productive use of one's time in a job -- has often been buried under the concern with preparing college-bound students for college. It has been obscured by the tendency to reward scholastic and athletic achievement in high school while providing little tangible recognition for those students whose skills lie in such areas as mechanics, office machine repair, or personal service.

The Southern California Regional Occupational Center was organized to fill this need. The courses offered, the environment, and the mode of instruction for many of its classes are aimed towards graduating students who are prepared for entry-level jobs. The particular occupations where there is a demand for entry-level workers have been identified by close cooperation between the Center and local employers. The instructional environment simulates working conditions. Instruction is directed toward attaining Terminal Performance Objectives by every graduating student. When the student receives his Certificate of Proficiency, he is ready to apply for a job, and he knows that his training is in an area where there is a demand for his skills.

An important ingredient of successful vocational education is guidance counseling. The Center has been operating a guidance program since its inception.

The program has been successful in matching student Performance Profiles with courses offered by the Center. It has been successful in helping instructors to develop techniques to work with students in overcoming learning difficulties. The success of the Center's guidance program is indicated by the high percentage of students completing the courses satisfactorily and the high percentage of job placement for graduates.

A contributing factor to successful guidance can also be the type of student who volunteers to enroll. If he is highly motivated to succeed and is endowed with considerable ability, the guidance program need only inform him of the existence of the Center. The Center, however, feels that it can be of even greater service to the community if its guidance program can reach students who are not motivated and who are not aware of their own potential. This study was aimed at determining whether or not the Center is currently attracting low-motivated students, finding ways of reaching more low-motivated students, and identifying factors in the guidance program that have contributed to its high degree of success.

SECTION B. DELINEATION OF THE PROBLEM TO BE INVESTIGATED

As a regular part of the instructional program at the Southern California Regional Occupational Center, vocational guidance is provided to all students who enroll in an instructional program. The basic approach is to obtain an inventory of each student's interests, acquired skills, and past school performance, both general and related to specific instructional programs offered. This information is combined to form a Performance Profile for each individual. This Performance Profile is then systematically compared with the entry level skills and interests for each course offered at the Center. Each student is encouraged to enroll in the course which most suits his abilities and interests.

The ability of Performance Profile information to predict student success in a particular instructional program has been very high. The problem is, that while this approach seems to be highly effective, the specific variables and their interrelationships have not been adequately identified, are not understood and therefore cannot be improved upon or systematized for general usage in vocational guidance programs.

The overall project objective has thus become the following: (1) To investigate the parameters of the Southern California Regional Occupational Center and member district Vocational Guidance Programs in relation to student course selection at the Center; (2) Based on findings from the data collection phase of the project (Performance Profiles from each student's cum folder, plus a motivation measure and a vocational maturity measure) to develop a guidance model which will better assist students to select a course at the Center which is appropriate to the interests, needs and abilities of each individual.

SECTION C. PROJECT OBJECTIVES

The stated project objectives were as follows:

1. To identify those factors in the guidance process which have resulted in the extremely high success rate of students at the Center. (Where success rate is defined as successful course completion and job placement after training.)

2. To isolate those factors leading to student success which may be directly attributed to the guidance program as separate from the instructional program.

3. To actively seek to increase the enrollment of "low-motivation" students and to acquire data on the effects of the guidance program with this population.

4. Based on project findings, to develop a guidance model for vocational education which will predict trainee performance in any given instructional program.

5. To further refine this guidance model so that changes in performance and attitudes after completion of any given instructional program may be predicted. This prediction of change to be derived from the performance and attitude profiles acquired at the time of initial enrollment.

PART II

PROCEDURES

PART II: PROCEDURES

SECTION A. DESIGN OF THE PROJECT

Based on an initial analysis of project objectives, and Center operational policies, the following assumptions were made regarding project objectives. These assumptions are as follows:

1. It is possible to identify a course in which each enrollee will be satisfied and successful in spite of variations in instructional programs.

2. Poor instructor techniques will produce a lower success rate among those trainees who are not as well "matched" to an instructional program than among those who are well "matched".

3. There are large numbers of students presently attending Center member high schools who have a demonstrable "need" to attend the Center, but who do not apply for enrollment.

4. Lack of movitation, low self-esteem, and low vocational maturity are three factors which contribute to failure to enroll.

5. If it can be established that: a) the above factors contribute significantly to failure to enroll and; b) that once enrolled, effective guidance techniques ensure trainee success, then a guidance model to provide successful course placement and thus trainee success can be produced.

6. It will be possible, utilizing results of the data collection instruments, to identify that group which is "low motivation", where a "low motivation" individual is defined as one whose goals are other than achievement, or who does not see achievement as possible for himself.

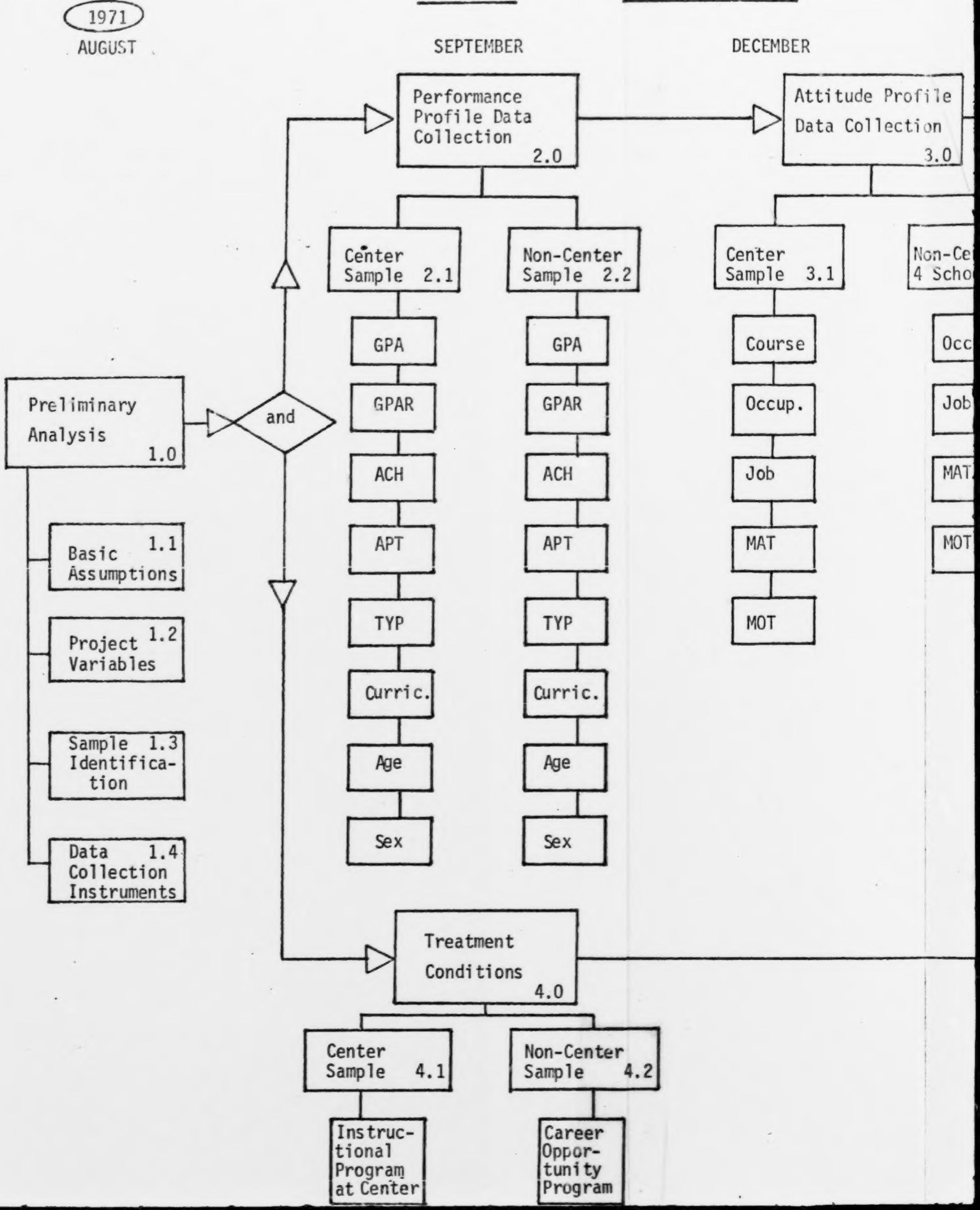
7. The Career Opportunity Programs, which have been disseminated to 22 of the member district high schools, will tend to increase appropriate course selection by students without increasing the cost of guidance.

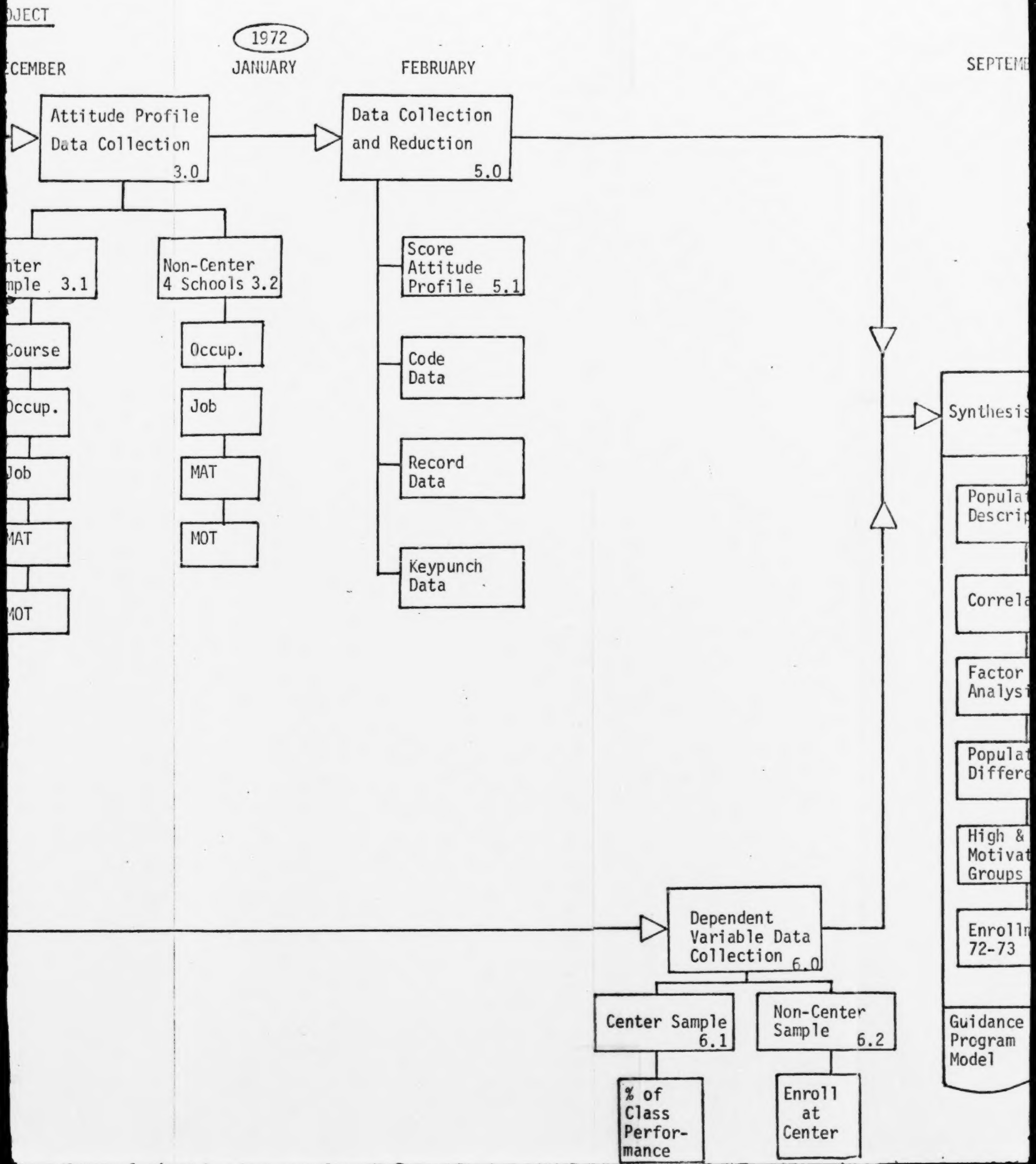
8. Use of the Career Opportunity Programs will increase applications for enrollment, especially among that group identified as "low-motivation."

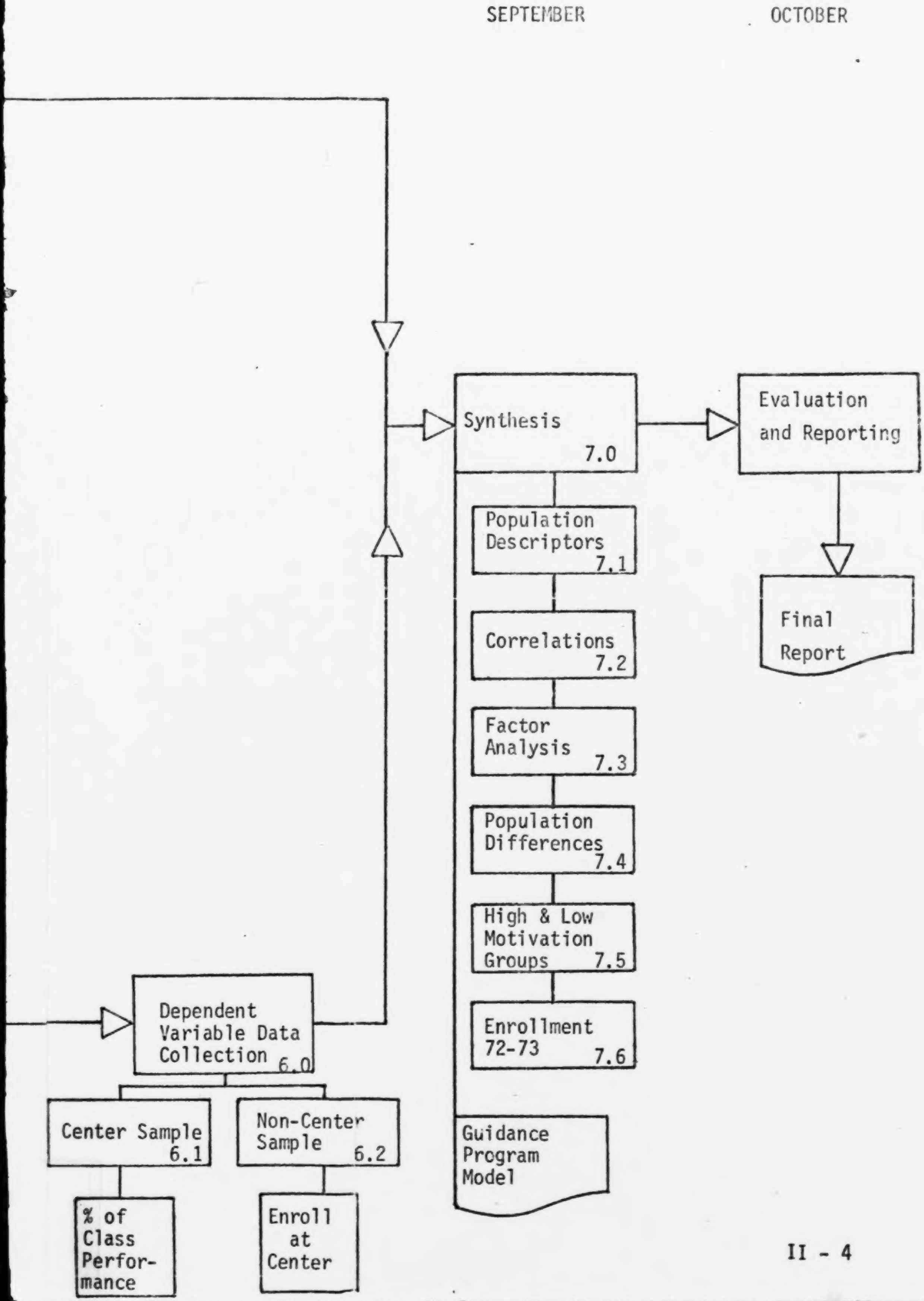
Based on these assumptions an ex post facto descriptive type of research design was produced (See Figure 1) to acquire and analyze all data requisite to meeting project objectives. Dependent variables were identified as the motivation and maturity measures and Center student performance in the various instructional programs. These dependent variables were then compared with Student Performance Profile data.

In the original project design, Performance Profile data were scheduled to be collected from a sample of member high school juniors participating in general education programs. Due to the difficulty of identifying general education students as separate from college preparatory students without an extensive search of the cum folders, it was decided to include all member high school juniors in the non-Center sample, and to utilize the type of instructional program the student was participating in as another independent variable.

FIGURE 1 DESIGN OF PROJECT


1971
AUGUST
SEPTEMBER
DECEMBER
Performance Profile Data Collection 2.0
Attitude Profile Data Collection 3.0
Center Sample 2.1
Non-Center Sample 2.2
Center Sample 3.1
Non-Ce
4 Scho
GPA
GPAR
ACH
APT
TYP
Curric.
Age
Sex
GPA
GPAR
ACH
APT
TYP
Curric.
Age
Sex
Course
Occup.
Job
MAT
MOT
Occ
Job
MAT
MOT
Preliminary Analysis 1.0
and
Basic Assumptions 1.1
Project Variables 1.2
Sample Identification 1.3
Data Collection Instruments 1.4
Treatment Conditions 4.0
Center Sample 4.1
Non-Center Sample 4.2
Instructional Program at Center
Career Opportunity Program


OJECT
1972
ECEMBER
JANUARY
FEBRUARY
SEPTEM
Attitude Profile Data Collection 3.0
Data Collection and Reduction 5.0
nter
mple 3.1
Non-Center 4 Schools 3.2
Course
Occup.
Job
MAT
MOT
Occup.
Job
MAT
MOT
Score Attitude Profile 5.1
Code Data
Record Data
Keypunch Data
Synthesis
Populat
Descrip
Correla
Factor
Analysi
Populat
Differe
High &
Motivat
Groups
Enrolln
72-73
Guidance Program Model
Dependent Variable Data Collection 6.0
Center Sample 6.1
Non-Center Sample 6.2
% of Class Perfor-mance
Enroll at Center


SEPTEMBER
OCTOBER
Synthesis 7.0
Evaluation and Reporting
Population Descriptors 7.1
Correlations 7.2
Factor Analysis 7.3
Population Differences 7.4
High & Low Motivation Groups 7.5
Enrollment 72-73 7.6
Guidance Program Model
Final Report
Dependent Variable Data Collection 6.0
Center Sample 6.1
Non-Center Sample 6.2
% of Class Performance
Enroll at Center

Independent variables were identified as the following:

1. Grade Point Average (GPA)
2. Grade Point Average Related (GPAR)
3. Achievement Test Score (ACH)
4. Aptitude Test Score (APT)
5. Typing (TYP)
6. General Education student or College Preparatory student (GE or CP)
7. Job or No Job Future
8. Occupational Choice (Occu.)
9. Age
10. Sex
11. Grade

Data on items 1-6 and 9-11 were collected for all Center students (Item 4 was not available for all Center students) and for all Juniors enrolled in member district high schools. Data on Items 7 and 8 were collected for all Center students and for those non-Center juniors who received the attitude survey.

Dependent variables were identified as the following:

1. Score on Maturity test
2. Score on Motivation test
3. Class performance data (Center Students only)
4. View Career Opportunity Program (Non-Center Students only)
5. Enroll or non-Enroll (Non-Center students only)
6. Course choice (Non-Center Students only)

Comparisons between all variables for both samples (Center and non-Center) and for various population sub-groups were made in an attempt to identify those variables that differentiate between the two populations and which may be predictors of:

1. Success at the Occupational Center
2. Liklehood for application for admittance to the Center
3. Influence of Career Opportunity Programs
4. Identification of high and low motivation groups
5. Influence of the Guidance Program as separate from the Center instructional program.

Results of these analyses were to form the basis of a guidance model to assist in the accurate prediction of student performance at the Center.

SECTION B. SUBJECTS

The Southern California Regional Occupational Center presently serves 6 school districts with a total school population of 55,000 students. The composition of this student body is 56% White, 7% Negro, 0.5% American-Indian, and 36% other non-White. The Occupational Center total population of students enrolled in the Occupational Center at the time of data collection was 1321. The total number of students classified as high school juniors and attending one of the 24 member district high schools included in the project was 9120. An attempt was made to acquire performance profile data on each of these students. Loss of data for performance profile variables was caused by insufficient cum folder information. Loss of data for attitude profile variables was related to absenteeism or termination of attendance for Center students. Only four of the 24 high schools were included in the administration of the attitude survey for non-Center students. Additional data was lost due to absenteeism at the time of test administration among this group of students.

SECTION C. IDENTIFICATION/PRODUCTION OF DATA COLLECTION INSTRUMENTS

As identified in the project proposal, data was to be collected for both Performance Profile variables and Attitude Profile variables. In the original proposal the attitude profile was defined as including measures of motivation, self-esteem, level of aspiration and attitude toward school.

Operational definitions were established for the terms "motivation" and "attitude." Motivation was defined as an inner state that energizes, activates or moves, and that directs or channels behavior toward goals. A person with high motivation was defined as one whose inner state is such that behavior is positively achievement goal-directed, whereas a person with low motivation is one whose goal directed behavior is other than achievement, or who does not see achievement as possible for himself. An attitude was defined as a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner (Rokeach, 1970).

During the initial phase of the project, an attempt was made to identify various data collection instruments which would provide the required data for the attitude profile. Appendix B describes several of the instruments which were reviewed.

Acceptable measures of attitude toward school and self-esteem were identified and incorporated into the initial version of the test (see Appendix C). No measure of motivation was found to be adequate for project purposes. Therefore, the project staff developed a measure of motivation which incorporated the concept of "level of aspiration" and "motivation" to form what was interpreted as a measure of "achievement motivation."

While reviewing various test instruments, an additional measure was identified which the project staff determined would add a needed dimension to the survey. This was the vocational maturity measure, which was taken from the Performance Index with the author's permission.

The initial version of the survey thus encompassed the following sub-tests:

1. vocational maturity--123 T-F items
2. attitude toward school--32 items to be rated like to dislike
3. achievement motivation-11 situational questions with five solutions each to be rated from best to worst
4. self-esteem--a Guttman scale of 22 items

In addition an initial questionnaire was included which was designed to determine the economic status, type of family group and education of each student's family, as well as a possible "need" for occupational training.

Data to be collected for the Performance Profile was previously identified as that which the Center normally acquired for each enrollee. Data sheets were produced to facilitate transfer of this information from each student's cum folder. All data was converted to percentile scores utilizing a conversion chart which had been created by the Center guidance staff specifically for that purpose (See Appendix D).

Prior to implementation of the project, short filmstrip and cassette tape descriptions of each of the instructional programs at the Center were developed. Each of these programs described the content of the instructional program, the prerequisite skills necessary for success in the program and the field, and the kinds of job opportunities available after training. These programs were then disseminated to 22 of the member high schools to be utilized as a part of the guidance program.

Data to be collected relative to these programs (see Appendix E for a listing) was identified as the specific program that any given student viewed. A form was produced (see Appendix F) to collect information related to student viewing of the Career Opportunity Programs. This form was then disseminated to the 22 member high schools who had received the programs. Liaison counselors at each of the high schools were requested to complete or have the student complete the form after viewing a particular program.

In addition to the Attitude Profile and Performance Profile data, actual class performance of Center students was collected at the end of the first semester and at the end of the second semester. Since class performance is measured in a variety of ways, this information was translated into a percentage score based on the total requirements for the class.

SECTION D. FIELD TESTING OF ATTITUDE SURVEY

A trial test instrument was assembled from the following sources: A self-esteem scale (Rosenberg, 1965), an attitude toward school scale (Guilford, 1971), the vocational maturity scale from The Performance Index (Edgerton, 1971), and a situational test which was developed by the project staff to measure achievement motivation. In addition a distinguishing sounds test (an experimental instrument designed to measure achievement motivation) was utilized as part of the trial test instrument. The total test instrument was administered to approximately 200 students attending a high school outside of the region served by the Center.

Responses to this survey were analyzed both to determine questions which were redundant in terms of response similarity and to identify scales which did not discriminate between groups of students. Length of time required to complete the survey was also compiled for each of the 200 students, and was found to be an average of 40 minutes including instructions.

Responses to the attitude toward self-test and the attitude toward school scale showed a wide range of variability among trial test student responses. Since the purpose of the initial analysis of test data was to determine whether or not each measure included in the survey discriminated between students in such a way that a pattern of responses could be associated with both high and low motivation students, these two measures were judged to be adequate and appropriate in their initial form. Therefore only minor wording changes were made in both cases. No attempt was made to validate either measure, except in terms of face validity, since both measures had been previously validated. (see Appendix B).

The vocational maturity scale was analyzed primarily to identify items which could be deleted from the survey, since this scale in its initial form was inordinately long (123 items), and represented considerable duplication of items (two parallel forms of the scale were used from which to draw items.) Analysis first focused on the identification of items that were scored the same way by nearly all students. Items which were answered in the same way by all but three or four of the trial sample were deleted, since they did not increase the discriminatory power of the survey. Pairs of items which were answered the same by nearly all students were also identified. One of the two items in the pair (usually the item which showed the lesser variability) was deleted from the survey. By following these procedures, it was possible to delete 48 items from the scale without materially changing the relative scores of the trial population.

Correct responses to items in this test received a +1 score and incorrect items received a "0" score. The total test score was thus the total number of correct responses made by an individual.

The distinguishing sounds test was abandoned because the relationship between it and any other measurement of motivation was too obscure. Also analysis of the responses to this test indicated that variability of responses occured on a few items only. The total possible score on the test was 60, and the obtained range of score was 21-26. Also no response patterns that related to any of the other measures could be identified.

Analysis of the situational test of motivation was performed to resolve several problems. The first problem involved the ease with which students could follow the instructions for this portion of the survey without additional instructions on the part of the test administrator. This was a prime concern because of the complexity of the instructions. An analysis of the responses of the trial test population revealed that approximately 15% of the students made an error or errors when responding to this test.

Although this was not an especially high error rate, it was decided to simplify the instructions. Students were asked simply to choose the "best" and the "worst" solutions to each problem, rather than rating the choices 1 to 5, with 1 being the "best", 2 being the next best, 3 being neutral, etc. It was also decided to limit the number of choices for each situation to four rather than the original five, both to simplify the survey and to reduce the testing time required.

In order to determine item scores for the motivation survey, independent judgements were made by members of the project staff as to whether or not each response choice represented a "high" or a "low" motivation selection.

Each response was then assigned a score +2 to -2 based on the independent judgements of the staff (see scoring key, Appendix G). Where there was a large discrepancy between ratings, the response choice was revised or eliminated. One situation was eliminated because of ambiguity. The wording in several of the response choices was changed, also to reduce ambiguity.

Utilizing the scoring system, results of the field test were compiled. It was determined that the test elicited a wide range of responses from students and, in combination with other project data, would discriminate between the "high" and "low" motivation groups.

The proposed final version of the test (see Appendix H) was submitted to the Center administration for approval just prior to Christmas vacation. At that time several problems occured involving negative experiences on the part of administrators with "attitude" surveys. All demographic data included on the original test was eliminated, as were both the self-esteem and attitude toward school scales. The "Performance Index" (maturity measure) was shortened to 50 items.

The test was resubmitted for approval. Concern was expressed regarding the length of the instrument. The survey was then administered to approximately 15 Center students to determine the actual test taking time required. An attempt was made to involve students from classes with both high entry level requirements in reading and students from classes with low or no entry level requirements in reading to determine a reasonable range for the time required to complete the survey. The range was established as between 12 and 20 minutes for a student to complete all questions. Thus it could reasonably be said that the survey could easily be administered in one class period of 45 minutes. This information was then conveyed to the Center Administrative Staff and approval was obtained to contact those member high schools where the Survey was to be given. (see Appendix I).

SECTION E. DATA COLLECTION PROCEDURES

1. Cum Folder Data Collection: Data collection from the member high school cum folders was performed by two field workers and the project secretary. Letters were sent out to the principals of each high school to be contacted informing them of the purpose of the project and the pending data collection activities at their school. In addition each field worker and the project secretary received a letter of introduction signed by the superintendent of the Center, which they presented as necessary at each high school (see Appendix J). Twenty-four high schools in the 6 member districts were visited. Performance Profile Data was collected for all Juniors at each high school. To ensure comparability of data, all scores were converted to percentile rankings. All data were listed by student name, name of high school and name of district. This was to facilitate later coding for keypunch. This phase of the data collection activities was completed on December 15, 1971.

Data collection for Center students was performed by the project secretary. The procedure was essentially the same as for member high school students. All data was again converted to percentile rankings utilizing the conversion chart (see Appendix D), and was listed by student name, member high school and member district. In addition the information was coded to indicate that the student was presently attending the Center. This phase of the data collection activity was completed on January 15, 1972.

2. Survey Data Collection: The original intention of project staff was to administer the Attitude Survey to all high school juniors attending member districts. However,it was established that this was impossible, since it was

felt that requesting such a testing program from some of the districts would result in controversy. Therefore individual schools to receive the survey were selected on the following basis:

(a) Center staff felt the school principal would be amenable to permitting the survey to be administered;

(b) the school selected sent a substantial number of their students to the Center, and

(c) the school population was representative of the district of which it was a part.

On the basis of these three criteria, seven schools were selected to receive the survey. The principals of these schools were again contacted to obtain approval for testing. Four of the schools approved the testing procedures. One of the districts involved required that a research proposal be submitted to the district for approval prior to testing.

Each of the schools was given a choice of testing procedures ranging from large group administration of the survey performed by the project field workers to teacher instructions for administration in individual classes. Each of the four schools preferred to have their U.S. History teachers administer the survey in each of their classes throughout the day, rather than have project field workers come to the schools. Therefore a set of instructions was developed for the teacher who was to administer the survey. (see Appendix K)

Administration of the Survey to Center students was accomplished in the following manner: A memo was sent to each of the instructors specifying the date of survey administration and enlisting their cooperation. Both project field workers, the project secretary and one of the principal investigators assisted in the procedure. Surveys were sorted by class according to the enrollment in each of the three sessions. Sharpened pencils were provided. At the beginning of each session the surveys were delivered to each of the classes. The written instructions were provided for each instructor who administered the survey to ensure similarity of testing situation. Completed surveys were collected prior to the break for each of the sessions.

Students who completed the survey on the initial day of testing were checked off the list for each class. An attempt was made to acquire data from students who had been absent during the initial testing by revisiting each class on two additional occasions during the week following testing. Instructors were then asked to administer the survey to any students who had been absent on all three occasions if they came to class. Each instructor was provided with a list of the names of students who had not completed the survey. In this way almost the entire Center population received the survey.

3. Center Trainee Performance Data Collection: At the end of the semester and at the end of the school year, performance data on all Center students were collected by the project secretary. The procedure was to visit each class and record those terminal performance objectives that each trainee was expected to complete during the school year. All students in each class were then listed. Performance behaviors completed to the end of the semester and to the end of the year were checked off for each student. This information was then translated into a percentage score for each individual based on the total possible number of objectives for the given class.

4. Data Collection for Students who Viewed the Career Opportunity Programs: At the beginning of the school year a set of 22 Career Opportunity Programs were distributed to 22 of the high schools which the Center serves. Each Career Opportunity Program consists of a brief description of a course taught at the Center and includes information about the kinds of jobs which are available after training and the kinds of skills which are required to successfully perform a particular job. Liaison counselors at each of the high schools which received the programs were provided with a pad of forms to be completed as a student viewed the programs. (see Appendix F). Periodically throughout the year, a member of the project staff visited each high school to pick up the completed forms and distribute more forms as needed.

5. Data Collection for Students who Applied for Enrollment at the Center for the 72-73 School Year: Enrollment applications at the Center for the next school year are normally received prior to the end of the current school year. Therefore, to measure the effects of the Career Opportunity Programs both on appropriate course selection and on requests for enrollment among the low motivation population, data were collected on each student that applied for enrollment at the Center for the 72-73 school year. These data included their first choice of a course, their second choice and the course which they were actually assigned to.

Although the target date for this phase of the data collection was May 1, 1972, data were too incomplete at that time, and the data collection procedures had to be delayed until after June 30th.

To avoid an overload near the end of the project, this portion of the data was punched on a separate card for processing, along with Center student course performance data, and students viewing the Career Opportunity Programs.

SECTION F. DATA PROCESSING AND ANALYSIS

1. Coding, Recording and Keypunching the Data. Once data collection of the performance and attitude profiles was complete, the data processing and analysis phase of the project was implemented. A coding system was developed for each portion of the data and a card format was established (see Appendix L). All raw data were transferred to data sheets for keypunching. Center trainees assisted in the keypunching and verifying of the data cards, under the supervision of the project secretary.

Since the data to be analyzed for this study consisted of a very large sample of students (Over 10,000), the keypunching requirements were quite extensive. Each student could have from one to three cards of data, depending on what information was available. For ease in keypunching, all card 1's were punched together, and similarly cards 2 and 3. Since different keypunch operators received different groups of data, the final punched cards were not in any systematic order. However each of the three cards for each individual contained a common ID number unique for each student, which was later utilized to sort the cards by student.

2. Processing of Data:

Step 1. All data were initially transferred from cards to computer tapes. One tape was used for Center students, and one for non-Center students. This was necessary because the ID columns had to be identified in a different manner for each of the two groups.

Step 2. With such a large number of cards, keypunch errors were unavoidable in spite of verification of punching. Even a single alpha punch in a column which requires a numeric punch prevents a program from performing the desired statistical analysis. Simple tally counts were made of the data found in each column. These were obtained through the use of the following programs: BMD04D, and BMDP4D.

Step 3. A Fortran program (named CLEAN) was prepared to remove errors. In some cases it could be determined that certain symbols, e.g., "_" should have been "-". These were changed to the correct symbol. In some cases double punches could be identified and changed to the correct single punch. Certain errors were not solvable, and that item for that subject would be set at "blank". Unexpected errors were found at later dates during the processing procedure, and additional Fortran programs were written to correct those few cases in which previously undetected errors appeared.

Step 4. Each tape was submitted to a program called SORT, which is contained in the computer library. Control cards for this program enabled the data to be sorted by ID and card number, so that each student would have in card order, on a new tape, all of the cards that had been punched for him.

Step 5. The data obtained from the SORT program was listed on computer output paper. By examining each student's data cards it was discovered that about 60-70 students had two card 3's. The second card 3 was a legitimate one, and contained data on students who had attended the Center for two years. To assign four cards to each student would have increased the size of the total data set considerably, and increased the cost of every computer run. Therefore the extra card was eliminated through Step 6.

Step 6. A Fortran program was written to transfer the extra data from the second card 3 onto empty columns in the first card 3 and discard the second card 3.

Step 7. A Fortran program was developed (called BLANK) which assured that each student had three cards. In this way every variable would be in the same "column" (or position in the data set) for each student. This was necessary as a student would have one or more, or any combination of the three data cards. If a student did not have data assigned to any of the cards, that card would have been missing from the original data set. In order to make a complete data set for each student, those who did not have one or more of the three cards, would be assigned a blank card (or cards) so that his data set was completed.

The program BLANK was run on both Center and non-Center tapes, transferring the newly organized and complete data on two data tapes. From these tapes, all further analyses were performed.

Step 8. In order to analyze the Motivation Test, a Fortran program was written to select only students who had completed this measure and place their data on two separate data sets, one for Center and one for non-Center samples. These data sets were to be used for performing a factor analysis on the Motivation test. In order to use factor analytic techniques, all variables must be scaled, which was accomplished in Step 9.

Step 9. A Fortran program was written to transform the item responses of the Motivation test to scaled variables. Items were originally scored "1" for approval, "4" for disapproval, and "blank" for neither approval nor disapproval.

The new coding was as follows: "1" for disapproval, "2" for neutral, and "3" for approval. New data sets were created for the transformed data.

3. Analysis of Data

Five programs from the Bio-Medical Library were selected as appropriate for all of the data analyses to be performed. Small Fortran programs were written to select cases, when analyses were performed on different sub-groups.

The statistical programs used were as follows:

a. BMD03D: This program computes a simple correlation matrix and the formula used is the Pearson-product-moment correlation coefficient. Missing data for each variable may be deleted, so that the obtained correlations are computed only for those cases having data in the two variables being correlated.

b. BMDP1D: This is a summary statistics program. Groups of cases may be selected, and, for each variable means, standard deviations, minimums, maximums, ranges, and total frequencies are computed from non-missing data.

c. BMDP2D: This is a frequency count program. This program counts and lists distinct values in ascending order, and computes summary statistics of selected variables. Output from this program includes: the number of cases counted and sorted, maxima, minima, range, median, mode, means, standard deviation, and standard error of the mean for each selected variable.

d. BMDX70: This program computes *t* statistics and associated probability levels for the equality of the means of two groups based on pooled and separate variance estimates. The pooled variance adjusts for unequal *N*'s, which was the case for most of the analyses performed.

e. BMDX72: This program performs factor analyses. For the factor analysis of the Motivation test, the following conditions were used: the input was a correlation matrix. Initial communality estimates were squared multiple correlations. The factors were restricted to be orthogonal and rotated to the Varimax criterion.

The total sample of students (Center and non-Center) who were administered the Motivation test was submitted to factor analyses. Three to six factor solutions were examined. The most interpretable and stable solution appeared to be that with five factors. Factor scores were computed for each student for each of the five factors. These scores were added to each student's data set and included in some of the comparisons and correlational analyses.

NOTE: Complete formulas for all analyses described above, may be obtained from the following references:

Dixon, W.J. BMD Biomedical Computer Programs. Berkeley & Los Angeles: University of California Press, 1968.

Dixon, W.J. BMD Biomedical Computer Programs, X-series Supplement. Berkeley & Los Angeles: University of California Press 1969

Health Sciences Computing Facility. BMD P Series. University of California at Los Angeles, 1970-1972.

SECTION G. LIMITATIONS OF THE PROJECT DESIGN

The following limitations were imposed upon the project for reasons stated:

1. Restricted on number of variables that could be measured to: age, having held a job, maturity, motivation, and information from cum folders. Independent variables that could have a major influence on findings but were ruled out to reduce possibility of complaint by parents are: father's occupation, parent's education, attitude towards school, self-esteem.

2. Incomplete cum folders for many students at SCROC. High aptitude scores were included but not low aptitude scores for certain students.

3. Motivation test was developed by investigators. There was no one else's experience to compare it with. The responses were written by the investigators and screened for variation of responses in a pre-test.

4. Original design proposed to give survey instrument to all Juniors in all 24 high schools from which the SCROC student body is drawn. Permission was obtained to use only four schools representing two of the six districts providing students to SCROC. Interpretation of the findings is therefore restricted to students from these four high schools.

5. SCROC population and high school Junior population differ in age by one year. This biases any findings involving age-dependent variables when comparing the two populations. This bias could have been eliminated by extending the project over at least two years.

PART III

PROJECT FINDINGS

PART III: PROJECT FINDINGS

SECTION A: PROJECT DATA

1. Population Descriptors. Based on an analysis of Performance and Attitude Profile data, the following general population descriptors for Center and non-Center students were identified (see Table 1).

The total number of Center students included in the sample was 1321; the total number of non-Center students was 9121.

The sex ratio for both populations was essentially the same. 50.5% of the Center students and 50.9% of the non-Center students were male; 49.5% of Center students and 49.1% of non-Center students were female.

The Mean age for Center students was 17.06; the Mean age for non-Center students 16.24. This difference in age is related to the fact that all non-Center students included in the sample were juniors at the time of data collection, whereas only 25.9% of the Center sample were juniors at the time of data collection. For Center students 1% were sophomores and 75.1% were seniors.

With respect to curriculum, 67.1% of the Center students were identified as "General Education," and 32.9% as "College Preparatory." This ratio was almost exactly reversed with non-Center students, with 39.5% identified as General Education and 60.5% identified as College Preparatory. It should be pointed out that "College Prep." students were identified on the basis of having successfully completed Algebra I plus either current enrollment in Algebra II or Geometry. However, if the type of program was provided on the class roster, the information was accepted in lieu of cum folder information.

58.4% of the Center students had successfully completed typing, as compared with 47.6% of the non-Center students.

Of those students who completed the project Attitude Profile, 64.9% of non-Center students indicated that they had at one time held a job; 73.4% of the Center population indicated that they had held a job or presently had a job.

TABLE 1

DESCRIPTION OF CENTER AND NON-CENTER SAMPLES
ON SELECTED VARIABLES

		CENTER		NON-CENTER	
		N	%	N	%
Sex	Male	667	50.5	4643	50.9
	Female	654	49.5	4477	49.1
Job	Yes	689	73.4	1198	64.9
	No	236	24.8	603	32.7
Years	11	3	.2	1	
	12	1	.1		
	13				
	14			3	
	15	6	.5	186	2.1
	16	222	16.8	6641	74.0
	17	793	60.2	1987	22.2
	18	267	20.3	134	1.5
	19	19	1.4	15	.2
	20	3	.2	1	
	21	2	.2		
Curric	GE	706	67.1	3432	39.5
	CP	346	32.9	5250	60.5
Typing	Yes	578	54.8	4137	47.6
	No	477	45.2	4548	52.4

Table 2 summarizes the distribution of the Center sample by session and class enrollment. It is interesting to note that the early morning session has the highest enrollment (40.6%), and that the number of students enrolled decreases in the afternoon session and again in the evening session.

Performance variables included the following:

a. Grade Point Average (GPA)
b. Grade Point Average Related (GPAR)
c. Achievement (ACH)
d. Aptitude (APT)

For Center students the Mean scores in percentiles for the Performance Profile variables are as follows:

GPA: 57.85 (N = 1054)
GPAR: 74.58 (N = 874)
ACH: 59.96 (N = 812)
APT: 64.23 (N = 192)

For non-Center students Mean scores in percentiles for Performance variables are:

GPA: 62.25 (N = 8752)
GPAR: 79.36 (N - 8697)
ACH: 55.30 (N = 7224)
APT: 58.63 (N = 7477)

Thus the Mean score for Center students was lower for GPA and GPAR than for non-Center students, and the Mean scores for achievement and aptitude were higher for Center than for non-Center students. It should be pointed out however that Center Aptitude data was virtually unavailable (N = 192), and thus no meaningful comparison between Center and non-Center students can be made on this variable.

Figures 2 - 4 illustrate the frequency polygons of GPA, GPAR and Achievement scores for the Center and non-Center populations.

TABLE 2

DISTRIBUTION OF CENTER SAMPLE BY SESSION, COURSE AND GRADE

AM	536	(40.6%)	7:30 - 10:00
AFT	503	(38.1%)	1:00 - 4:00
PM	282	(21.3%)	4:00 - 7:00

COURSE #	N	COURSE NAME
01	174	Business Procedures
02	115	Keypunch
03	192	Data Processing
04	40	Auto Tune-Up
05	87	Dental Assisting
06	168	Medical Assisting
07	28	Electro Mechanical Services
08	31	Major Appliance
09	21	Office Machine Repair
10	29	Radio & TV Repair
11	48	Machine Tool
12	53	Welding
13	35	Auto Painting
14	40	Auto Diagnosis
15	60	Auto Body Repair
16	19	Auto Parts
17	30	Brakes & Front End
18	60	Power Mechanics
19	35	Transmission Repair
21	56	Auto Engine Repair

GRADE:		
	Sophomores	13
	Juniors	302
	Seniors	948

FIGURE 2

FREQUENCY POLYGON OF GRADE POINT AVERAGE:
CENTER AND NON-CENTER SAMPLES

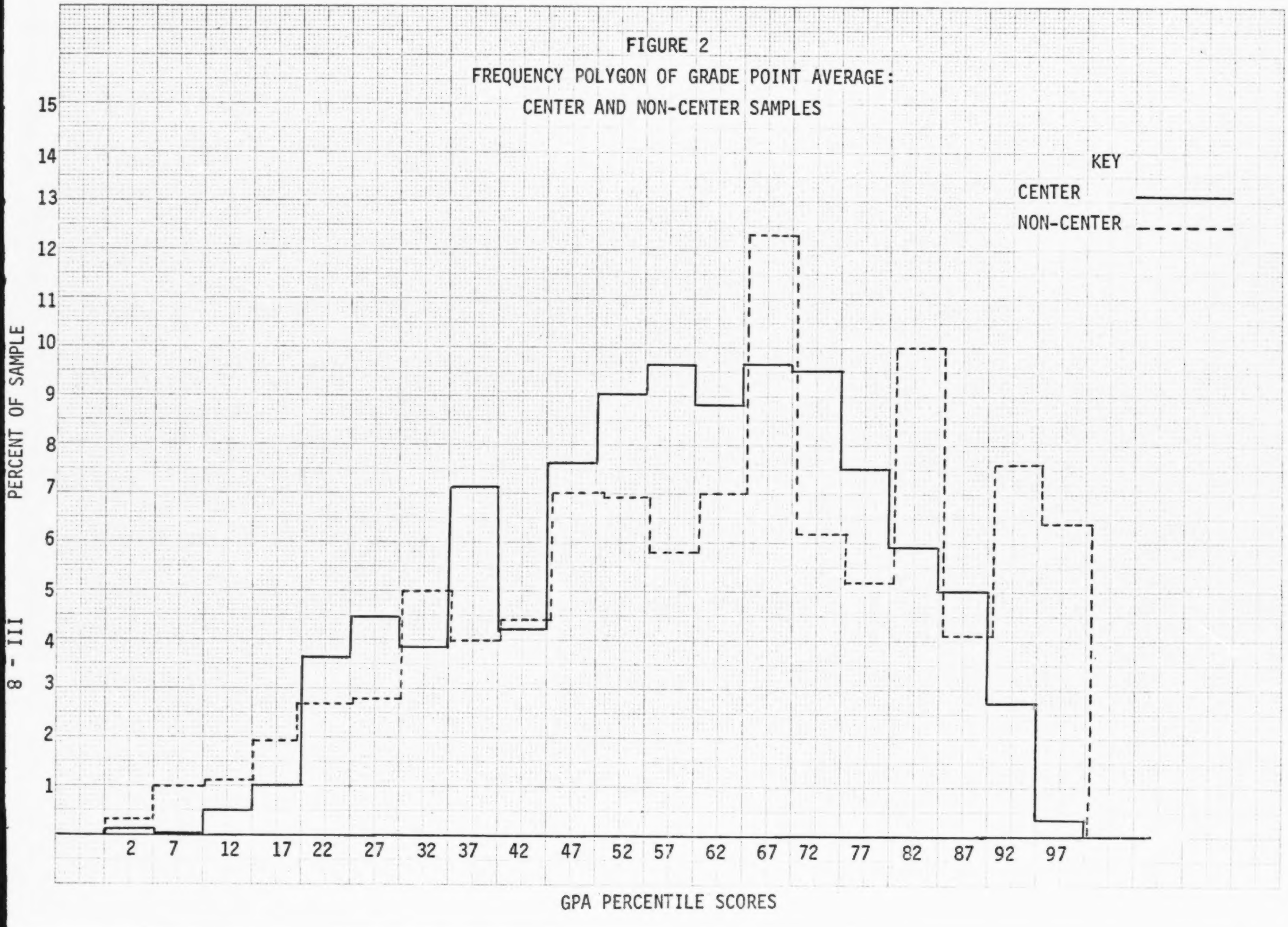
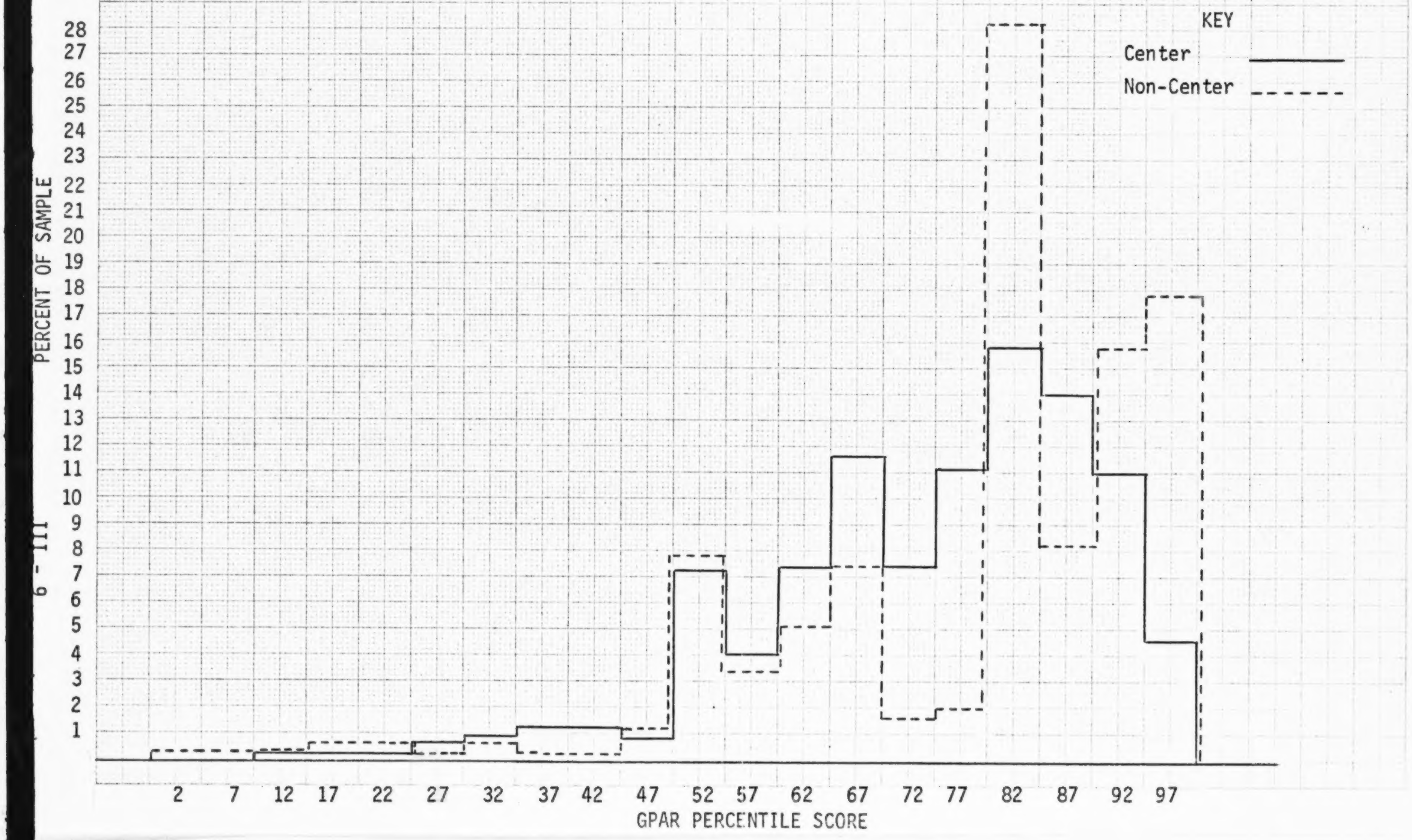


FIGURE 3

FREQUENCY POLYGON OF GRADE POINT AVERAGE RELATED SCORES:
CENTER AND NON-CENTER SAMPLES



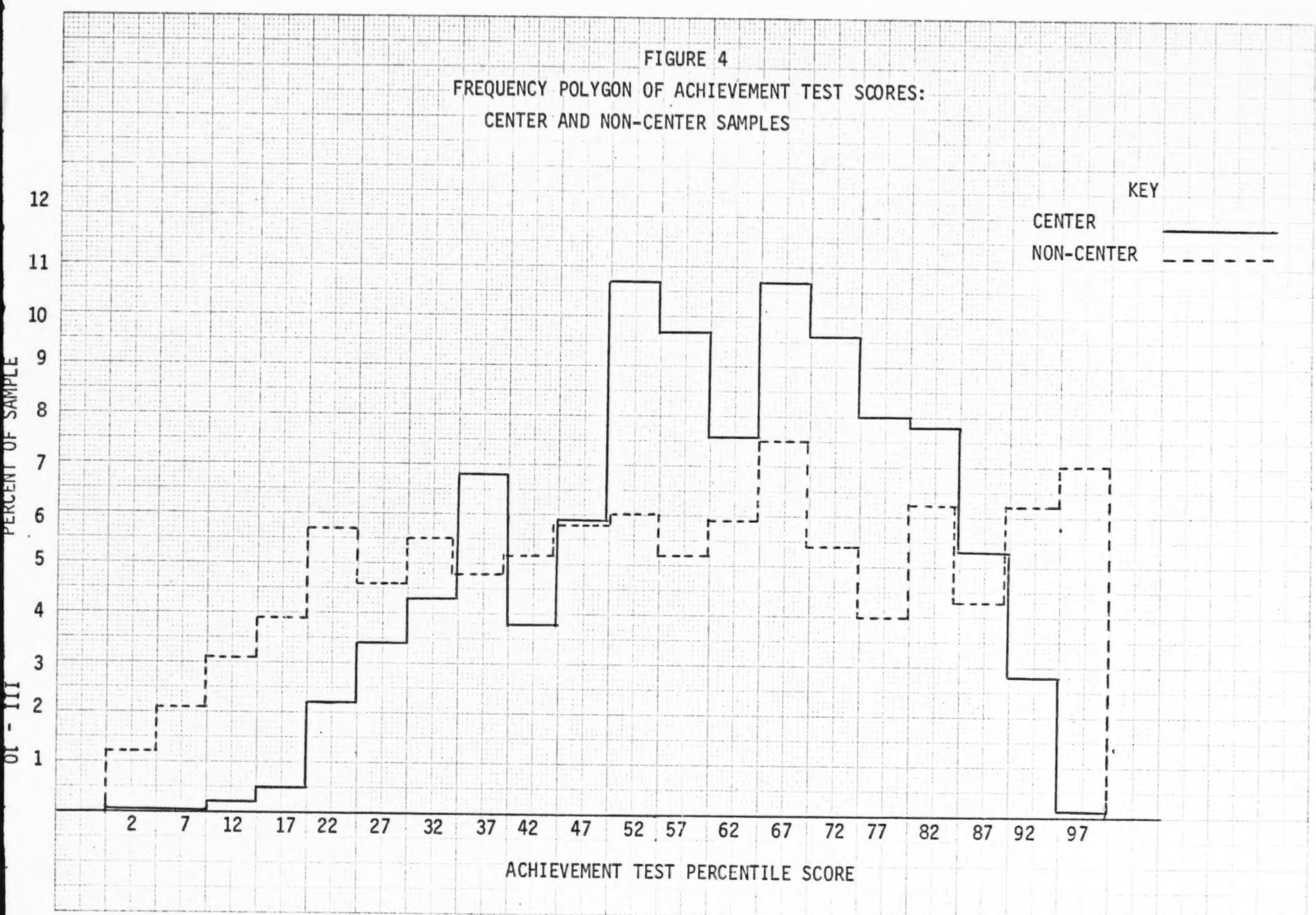


FIGURE 4

FREQUENCY POLYGON OF ACHIEVEMENT TEST SCORES:
CENTER AND NON-CENTER SAMPLES

For the Attitude Profile variables, Center students achieved a Mean score on the Motivation test of 12.80, while non-Center students achieved a Mean score of 11.83. Thus Center students as a group achieved a higher score on this measure. On the Maturity test Center students achieved a Mean score of 36.79, while the non-Center group achieved a Mean score of 35.56. Again, Center students achieved a higher Mean score than non-Center students. Figures 5 through 7 illustrate the frequency polygons for Center and non-Center students on the Motivation and Maturity tests.

In terms of future occupational choice, Center students tended to choose occupations requiring no college training, those defined as "blue-collar" jobs, while non-Center students tended to choose occupations related to the professional or technical fields. The Mean occupational choice score on a 1 - 8 scale was 4.04 for the total Center sample, while for the non-Center sample this Mean score was 2.22. Figure 8 and Table 3 summarizes this data.

Tables 4 and 5 summarize the population descriptors for both Center and non-Center samples.

FIGURE 5

FREQUENCY POLYGON OF MOTIVATION TEST RAW SCORES:
CENTER SAMPLE

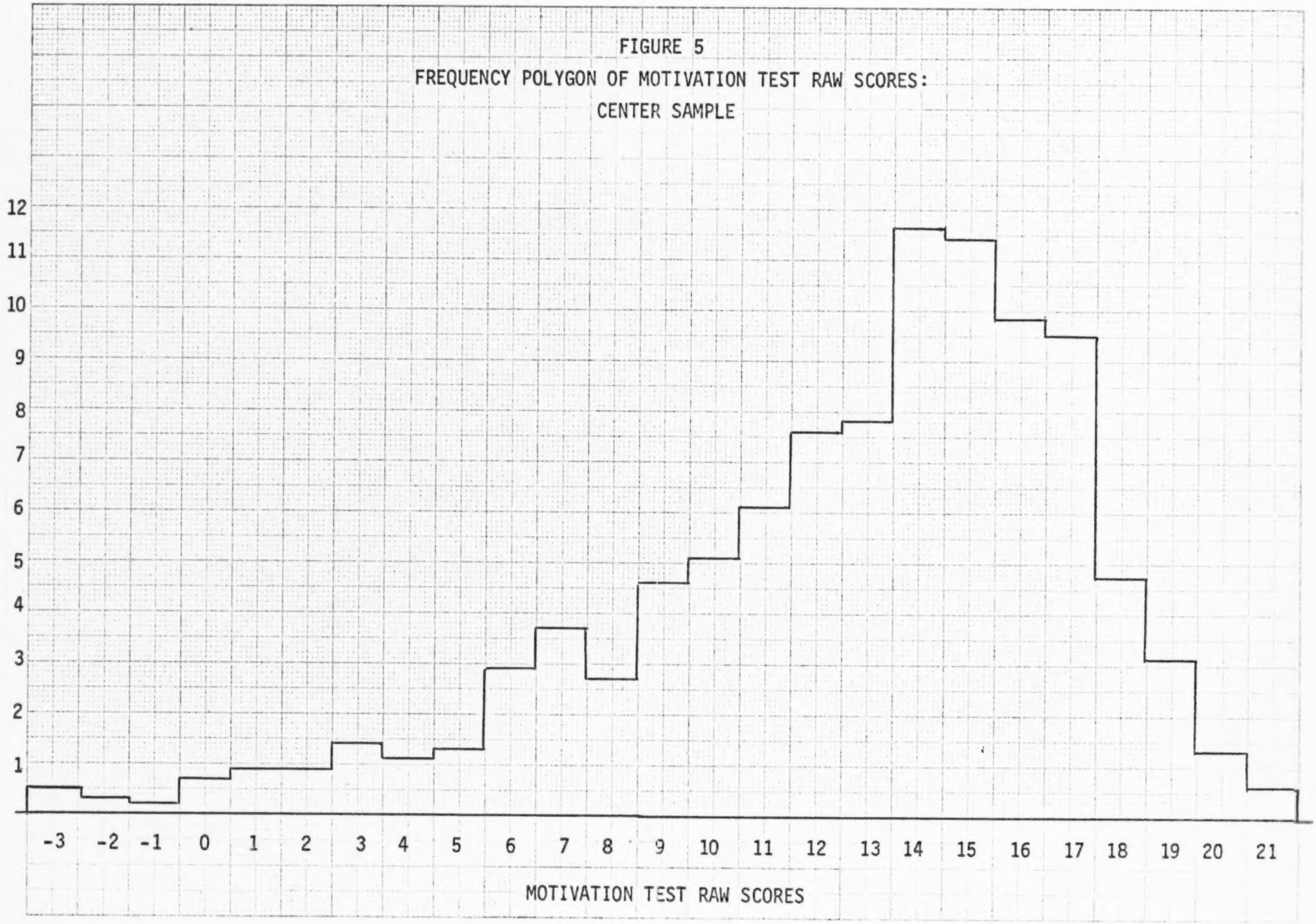


FIGURE 6

FREQUENCY POLYGON OF MOTIVATION TEST RAW SCORES:
NON-CENTER SAMPLE

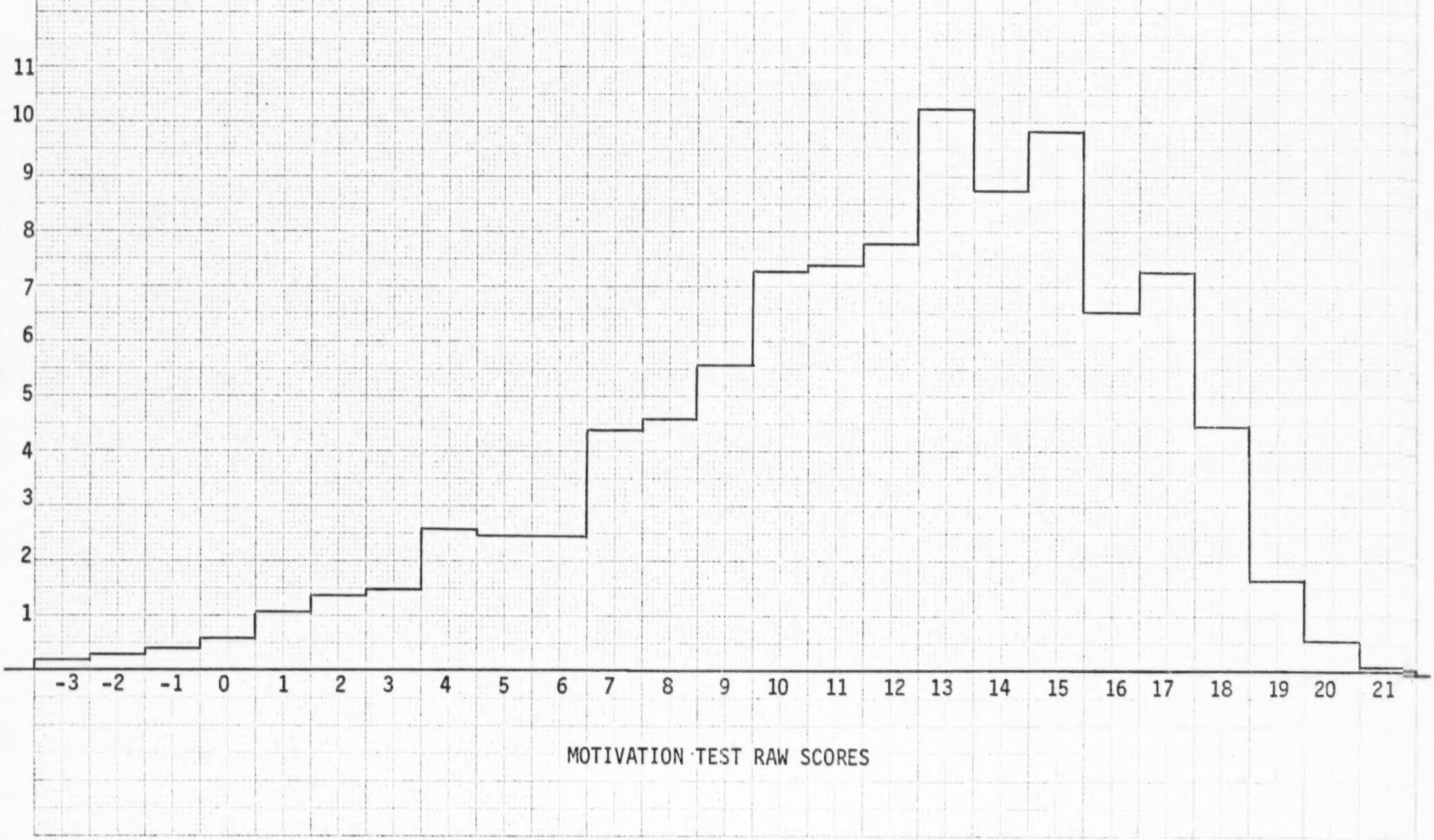


FIGURE 7

FREQUENCY POLYGON OF MATURITY TEST GROUPED RAW SCORES:
CENTER AND NON-CENTER SAMPLES

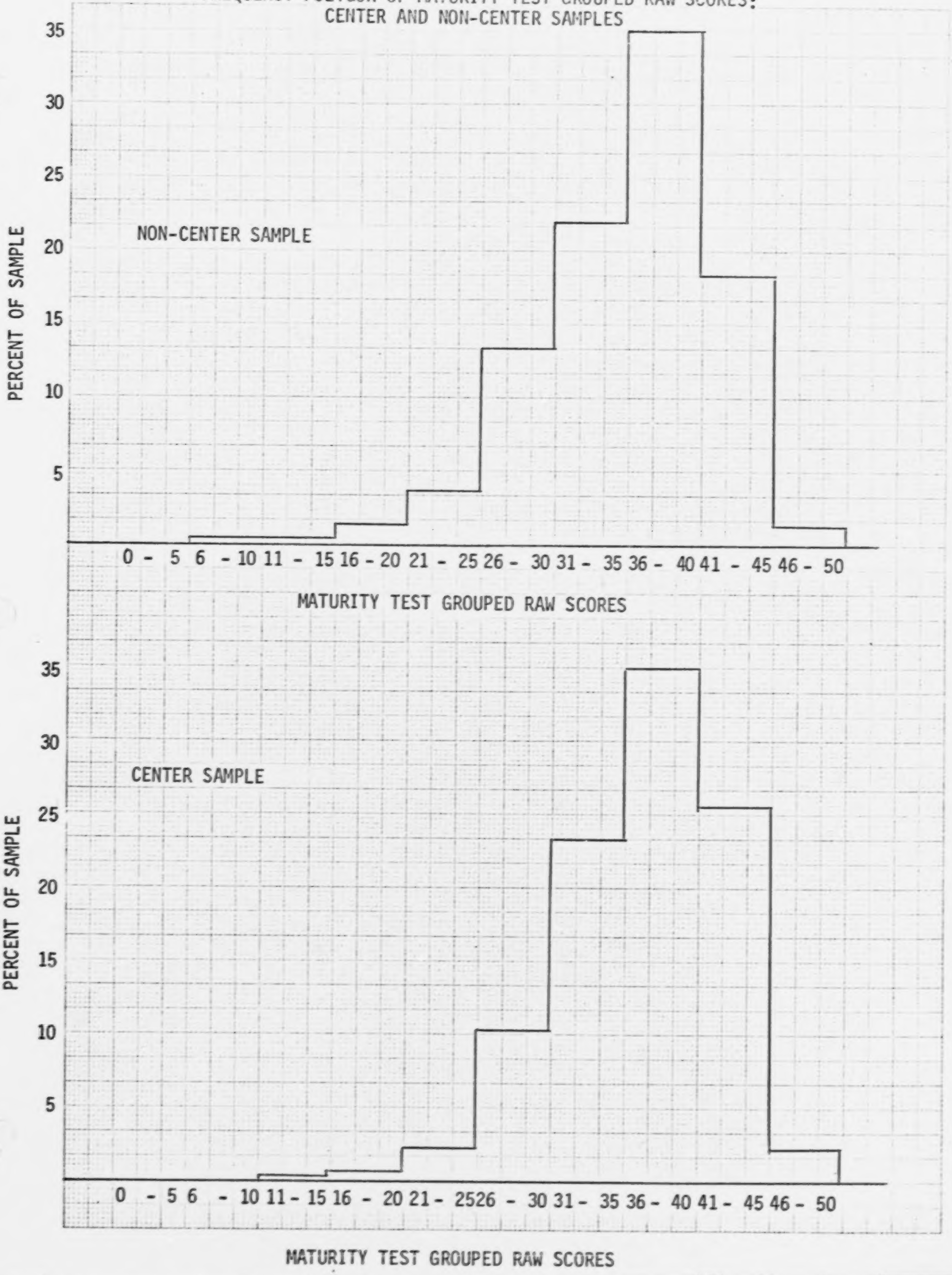


FIGURE 8

FREQUENCY POLYGON OF FUTURE OCCUPATIONAL CHOICE:
CENTER AND NON-CENTER SAMPLES

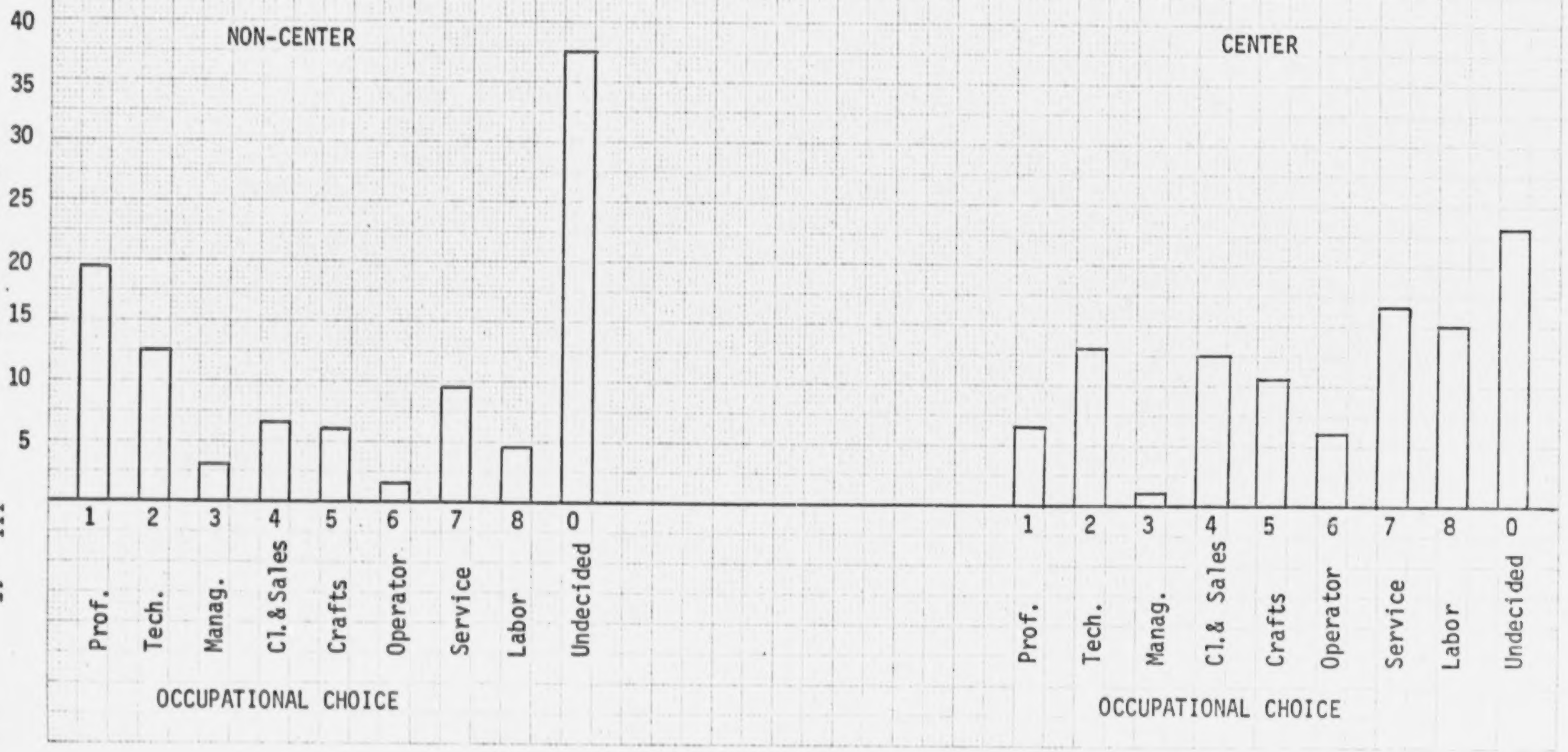


TABLE 3

OCCUPATIONAL CHOICE: CENTER AND NON-CENTER SAMPLES

	CENTER		NON-CENTER	
	N	%	N	%
Professional	61	6.4	355	19.2
Technical	124	13.0	229	12.4
Managers, Officials, Proprietors	7	0.7	54	2.9
Clerical and Sales	118	12.4	116	6.3
Craftsman or Foreman	98	10.3	108	5.9
Operators	54	5.7	30	1.6
Service, Salesperson	155	16.3	178	9.6
Laborers	143	15.0	87	4.7
Undecided	193	13.0	689	37.3

TABLE 4

SUMMARY OF CENTER SAMPLE PERFORMANCE PROFILE AND ATTITUDE PROFILE SCORES

	N	RANGE	$\overline{X}$	SD	S.E.M.
SEX	1321	1.0	1.495	.500	.014
YEARS	1318	13.0	17.058	.804	.022
GPA (%ILE)	1054	95.0	57.853	19.107	.589
GPAR (%ILE)	878	85.0	74.579	15.124	.510
ACH (%ILE)	812	85.0	59.961	18.410	.646
APT (%ILE)	192	75.0	64.234	16.847	1.216
CURR	1052	1.0	1.329	.470	.014
TYPING	1055	1.0	1.452	.498	.015
TOT MAT	964	34.0	36.786	5.488	.177
TOT MOT	936	24.0	12.804	5.669	.185
MOT SS #1	942	6.0	.890	1.511	.049
SS #2	942	4.0	1.510	.853	.028
SS #3	942	4.0	1.675	.687	.022
SS #4	942	4.0	1.604	.655	.021
SS #5	942	6.0	1.292	.922	.030
SS #6	942	4.0	1.695	.665	.022
SS #7	942	4.0	.947	.611	.020
SS #8	942	6.0	.056	1.751	.057
SS #9	942	4.0	1.537	1.080	.035
SS #10	942	4.0	1.346	.996	.032
OCCUP	953	8.0	4.035	2.923	.095
JOB	950	1.0	1.383	1.121	.036

TABLE 5

SUMMARY OF NON-CENTER SAMPLE PERFORMANCE PROFILE AND ATTITUDE PROFILE SCORES

	N	RANGE	$\overline{X}$	SD	S.E.M.
SEX	9121	1.0	1.492	.503	.005
YEARS	8969	9.0	16.242	.816	.009
GPA (%ILE)	8752	95.0	62.252	22.612	.242
GPAR (%ILE)	8697	95.0	79.360	16.706	.179
ACH (%ILE)	7224	95.0	55.299	26.569	.313
APT (%ILE)	7477	95.0	58.626	26.084	.302
CURR	8682	1.0	1.605	.489	.005
TYPING	8687	1.0	1.525	.508	.005
TOT MAT	1889	42.0	35.560	5.532	.127
TOT MOT	1793	24.0	11.827	5.186	.122
MOT SS #1	1806	6.0	.351	1.687	.040
SS #2	1806	4.0	1.453	.831	.020
SS #3	1806	4.0	1.691	.671	.016
SS #4	1806	4.0	1.553	.657	.015
SS #5	1806	6.0	1.207	1.093	.026
SS #6	1806	4.0	1.687	.641	.015
SS #7	1806	4.0	.963	.584	.014
SS #8	1806	6.0	.195	1.827	.043
SS #9	1805	4.0	1.332	1.233	.029
SS #10	1805	4.0	1.087	1.140	.027
OCCUP	1846	8.0	2.222	2.610	.061
JOB	1846	1.0	1.520	1.263	.029

2. Correlations.

a. Total Center and non-Center Correlation.

All performance and attitude variables were correlated in an attempt to identify relationships among all variables for the total group and for the Center and non-Center samples.

All of the expected high positive correlations for Center and non-Center students on Performance Profile variables were obtained, e.g., GPA GPAR, ACH and APT with each other. (See Tables 6 and 7)

One interesting finding was that for Center students the r for GPAR and GPA was .724, while the r for GPA and ACH was .963. The r for GPAR and ACH was .711. Thus for Center students the relationship between grade point average and achievement was stronger than was the relationship between overall grade point average and grade point average related.

For Center students, Curriculum (where 1 = general education and 2 = college preparatory) was highly correlated with GPA (r = .431), GPAR (r = .370), ACH (r = .425) and APT (r = .540). Curriculum also was fairly highly correlated with the total maturity test score (r = .203). The only other variable with which curriculum was at all correlated was total class performance (r = .128).

The sex variable for Center students (where 1 = male and 2 = female) was positively correlated with GPA (r = .313) and ACH (r = .306). It was also negatively correlated with Typing (r = -.614). The sex variable was also significantly correlated with: Grade (r = .143), Total Maturity test score (r = .180), Maturity test sub-scores 2 (r = .245), 3 (r = .180), 6 (r = .131), 8 (r = .135) and 10 (r = .120). A final significant correlation was with sex and the total Motivation test score (r = .146).

The age variable was highly correlated with grade (r = .483) as was expected, but no other significant correlations were obtained for this variable.

In addition to the previously mentioned correlations, GPA was also positively correlated with grade (r = .124), total Maturity test score (r = .160) Motivation sub-score 2 (r = .159) and total Center class performance (r = .168). GPA was also negatively correlated with typing (r =-.195).

Maturity and Motivation total test scores were highly inter-correlated, (r = .428) and the total Maturity test score was also highly correlated with all Motivation sub-scores.

Occupational choice was not significantly correlated with any of the other variables for the Center sample, and total class performance was only marginally (although significantly with p=>.05) correlated with GPA, GPAR, ACH, APT and CURR. (see Table 6).

For non-Center students, the following correlations were significant: (see Table 7) sex was positively correlated with GPA (r = .159) and Motivation sub-score #2 (r = .130). Sex was also negatively correlated with typing (r =-.304).

Age was negatively correlated with GPA (r =-.176) GPAR (r =-.147), ACH (r =-.153), APT (r =-.187) and Curriculum (r =-.187).

As was expected, GPA was highly correlated with GPAR (r = .834) and with ACH (r = .585), APT (r = .557) and CURR. (r = .510). Significant correlations were also found between the total Maturity test and GPA (r = .169), Motivation sub-score #2 (r = .178), total Motivation score (r = .185) and occupational choice (r =-.204).

In addition to previously mentioned variables, the GPAR variable was highly correlated with curriculum (r = .474). It was also significantly correlated with total Maturity test score (r = .150), Motivation test subscore #2 (r = .135), total Motivation test score (r = .146) and occupational choice (r =-.188).

Achievement and Aptitude variables were both highly correlated with curriculum (ACH r = .547; APT r = .533). Both of these variables were also correlated with total Motivation test scores (ACH r - .124; APT r = .124) and with occupational choice (ACH r =-.147; APT r =-.153)

Other significant correlations for the non-Center sample included the following: Curriculum with occupational choice (r =-.178); total Maturity test score with total Motivation test scores (r = .454); total Maturity test score with all of the Motivation sub-tests (see Table 7) and total Motivation test score with all of the Motivation sub-test scores (see Table 7), for the most part high inter-correlations were also found between Motivation sub-test scores (see Table 7).

	SEX	AGE	GPA	GPAR	ACH	APT	CURR	TYPE	GRADE	TOT MAT	SS #1	SS #2
SEX												
E	.048 (1317)											
GPA	.313 (1054)	.077 (1054)										
GPAR	.121 (878)	-.001 (878)	.724 (878)									
ACH	.306 (812)	-.042 (812)	.963 (812)	.711 (806)								
APT	.168 (192)	-.040 (192)	.666 (192)	.653 (183)	.709 (183)							
CURR	.164 (1052)	-.022 (1052)	.431 (1038)	.370 (865)	.425 (801)	.540 (187)						
TYPING	-.614 (1055)	-.028 (1055)	-.195 (1039)	-.045 (866)	-.185 (802)	-.006 (188)	-.058 (1051)					
GRADE	.143 (1262)	.483 (1262)	.124 (1048)	.087 (874)	.060 (810)	-.082 (191)	.070 (1048)	-.096 (1050)				
TOT MAT	.180 (963)	.021 (960)	.160 (769)	.137 (630)	.119 (583)	-.115 (145)	.203 (772)	-.085 (774)	.103 (925)			
SS #1	-.043 (939)	-.024 (936)	-.018 (753)	-.038 (618)	-.036 (570)	-.151 (143)	-.053 (755)	.046 (757)	.039 (901)	.313 (934)		
#2	.245 (939)	.033 (936)	.159 (753)	.094 (618)	.135 (570)	-.072 (143)	.077 (755)	-.148 (757)	.099 (901)	.304 (934)	.187 (942)	
SS #3	.180 (939)	.004 (936)	.110 (753)	.065 (618)	.148 (570)	.153 (143)	.110 (755)	-.111 (757)	.048 (901)	.205 (934)	.100 (942)	.257 (942)
SS #4	.111 (939)	.022 (936)	.028 (753)	-.021 (618)	.006 (570)	-.194 (143)	.021 (755)	-.041 (757)	.017 (901)	.263 (934)	.207 (942)	.268 (942)
SS #5	.108 (939)	.004 (936)	.069 (753)	.021 (618)	.031 (570)	-.002 (143)	.068 (755)	-.092 (757)	-.010 (901)	.246 (934)	.156 (942)	.139 (942)
SS #6	.131 (939)	.015 (936)	.065 (753)	.064 (618)	.047 (570)	.028 (143)	.105 (755)	-.099 (757)	.077 (901)	.233 (934)	.125 (942)	.272 (942)
SS #7	-.001 (939)	.039 (936)	.037 (753)	.066 (618)	.077 (570)	.077 (143)	.041 (755)	-.032 (757)	.008 (901)	.134 (934)	.073 (942)	.103 (942)
SS #8	.135 (939)	-.007 (936)	.120 (753)	.099 (618)	.090 (570)	.087 (143)	.053 (755)	-.067 (757)	.029 (901)	.159 (934)	.147 (942)	.103 (942)
SS #9	.072 (939)	.069 (936)	.074 (753)	.003 (618)	.051 (570)	-.159 (143)	.019 (755)	-.079 (757)	.051 (901)	.286 (934)	.230 (942)	.197 (942)
SS #10	.120 (939)	.100 (936)	.054 (753)	.016 (618)	.093 (570)	.075 (143)	.052 (755)	-.105 (757)	.119 (901)	.283 (934)	.198 (942)	.187 (942)
TOT MOT	.146 (941)	.033 (938)	.091 (755)	.017 (620)	.057 (572)	-.033 (144)	.097 (757)	-.085 (759)	.046 (903)	.428 (936)	.488 (942)	.423 (942)
CUP	-.086 (950)	-.002 (947)	-.073 (762)	-.030 (626)	-.065 (578)	-.083 (144)	-.077 (764)	.053 (766)	.003 (912)	.054 (944)	.012 (942)	-.005 (942)
% PERF	.029 (1098)	.035 (1095)	.168 (917)	.130 (789)	.139 (731)	.129 (175)	.128 (914)	.041 (917)	.073 (1061)	.103 (846)	-.005 (828)	.048 (828)
% PERF	-.112 (70)	-.157 (70)	.226 (63)	.257 (63)	.248 (57)	-.034 (16)	.170 (64)	-.022 (64)	-.197 (70)	-.124 (60)	.002 (59)	.097 (59)

TABLE 6

CORRELATION MATRIX FOR TOTAL CENTER SAMPLE ON ALL VARIABLES

TOT MAT	SS #1	SS #2	SS #3	SS #4	SS #5	SS #6	SS #7	SS #8	SS #9	SS #10	TOT MOT	OCCUP	% PERF	% PER
.313 934)														
.304 934)	.187 (942)													
.205 934)	.100 (942)	.257 (942)												
.263 934)	.207 (942)	.268 (942)	.238 (942)											
.246 934)	.156 (942)	.139 (942)	.262 (942)	.244 (942)										
.233 934)	.125 (942)	.272 (942)	.355 (942)	.238 (942)	.159 (942)									
.134 934)	.073 (942)	.103 (942)	.047 (942)	.147 (942)	.092 (942)	.172 (942)								
.159 934)	.147 (942)	.103 (942)	.072 (942)	.057 (942)	.100 (942)	.016 (942)	-.016 (942)							
.286 934)	.230 (942)	.197 (942)	.267 (942)	.173 (942)	.229 (942)	.231 (942)	.059 (942)	.063 (942)						
.283 934)	.198 (942)	.187 (942)	.206 (942)	.212 (942)	.142 (942)	.217 (942)	.173 (942)	.095 (942)	.251 (942)					
.428 936)	.488 (942)	.423 (942)	.399 (942)	.371 (942)	.384 (942)	.382 (942)	.232 (942)	.433 (942)	.454 (942)	.443 (942)				
.054 944)	.012 (942)	-.005 (942)	-.064 (942)	-.063 (942)	-.024 (942)	-.033 (942)	-.000 (942)	.034 (942)	-.063 (942)	-.009 (942)	.006 (944)			
.103 846)	-.005 (828)	.048 (828)	-.001 (828)	.010 (828)	.030 (828)	.014 (828)	.046 (828)	.082 (828)	-.014 (828)	.070 (828)	.071 (830)	.119 (838)		
.124 60)	.002 (59)	.097 (59)	.062 (59)	-.002 (59)	-.143 (59)	.213 (59)	.250 (59)	.146 (59)	.126 (59)	-.042 (59)	.142 (59)	.001 (59)	.390 (71)	

COR

	SEX	AGE	GPA	GPAR	ACH	APT	CURR	TYP	GRADE	TOT MAT	SS #1	SS #2	SS #3
SEX													
AGE	-.065 (8968)												
GPA	.159 (8752)	-.176 (8637)											
GPAR	.096 (8699)	-.147 (8636)	.834 (8687)										
ACH	.039 (7225)	-.153 (7175)	.585 (7183)	.487 (7178)									
APT	.026 (7477)	-.187 (7428)	.557 (7432)	.469 (7425)	.810 (7001)								
CURR	.022 (8681)	-.157 (8626)	.510 (8646)	.474 (8643)	.547 (7165)	.533 (7411)							
TYP	-.304 (8686)	.072 (8631)	-.102 (8647)	-.088 (8644)	-.046 (7167)	-.010 (7413)	-.030 (8681)						
GRADE	.000 (9118)	.000 (8966)	.000 (8749)	.000 (8696)	.000 (7224)	.000 (7476)	.000 (8679)	.000 (8684)					
TOT MAT	.080 (1885)	-.011 (1851)	.169 (1631)	.150 (1630)	.098 (1466)	.088 (1520)	.087 (1609)	-.036 (1609)	.000 (1889)				
SS #1	.003 (1802)	.006 (1771)	.084 (1570)	.073 (1569)	.041 (1412)	.030 (1463)	.044 (1548)	.027 (1549)	.000 (1806)	.374 (1801)			
SS #2	.130 (1802)	.013 (1771)	.178 (1570)	.135 (1569)	.062 (1412)	.100 (1463)	.054 (1548)	-.092 (1549)	.000 (1806)	.322 (1801)	.143 (1806)		
SS #3	.104 (1802)	.002 (1771)	.092 (1570)	.066 (1569)	.037 (1412)	.092 (1463)	.067 (1548)	-.045 (1549)	.000 (1806)	.222 (1801)	.158 (1806)	.237 (1806)	
SS #4	-.011 (1802)	-.008 (1771)	.035 (1570)	.037 (1569)	.058 (1412)	.037 (1463)	-.026 (1548)	.017 (1549)	.000 (1806)	.230 (1801)	.145 (1806)	.197 (1806)	.226 (1806)
SS #5	.041 (1802)	.006 (1771)	.119 (1570)	.095 (1569)	.058 (1412)	.078 (1463)	.043 (1548)	-.012 (1549)	.000 (1806)	.212 (1801)	.149 (1806)	.220 (1806)	.192 (1806)
SS #6	.108 (1802)	-.041 (1771)	.105 (1570)	.097 (1569)	.054 (1412)	.077 (1463)	.062 (1548)	-.062 (1549)	.000 (1806)	.225 (1801)	.090 (1806)	.227 (1806)	.288 (1806)
SS #7	.004 (1802)	.045 (1771)	.069 (1570)	.054 (1569)	.054 (1412)	.055 (1463)	.024 (1548)	.014 (1549)	.000 (1806)	.120 (1801)	.069 (1806)	.140 (1806)	.141 (1806)
SS #8	.107 (1802)	-.011 (1771)	.113 (1570)	.096 (1569)	.117 (1412)	.085 (1463)	.075 (1548)	-.055 (1549)	.000 (1806)	.120 (1801)	.071 (1806)	.035 (1806)	.045 (1806)
SS #9	.030 (1801)	-.015 (1771)	.119 (1570)	.091 (1569)	.057 (1412)	.064 (1463)	.004 (1548)	-.012 (1549)	.000 (1805)	.320 (1800)	.204 (1805)	.248 (1805)	.228 (1805)
SS #10	.085 (1801)	-.023 (1771)	.059 (1570)	.020 (1569)	.040 (1412)	.023 (1463)	-.007 (1548)	-.029 (1549)	.000 (1805)	.293 (1800)	.161 (1805)	.218 (1805)	.261 (1805)
TOT MOT	.105 (1813)	-.008 (1782)	.185 (1581)	.146 (1580)	.124 (1423)	.124 (1474)	.063 (1559)	-.053 (1560)	.000 (1817)	.454 (1812)	.529 (1806)	.484 (1806)	.480 (1806)
OCCUP	.018 (1842)	.016 (1811)	-.204 (1600)	-.188 (1599)	-.147 (1438)	-.153 (1492)	-.178 (1578)	-.027 (1578)	.000 (1846)	.072 (1841)	-.012 (1806)	-.034 (1806)	-.025 (1806)

TABLE 7

CORRELATION MATRIX FOR TOTAL NON-CENTER SAMPLE ON ALL VARIABLES

TOT MAT	SS #1	SS #2	SS #3	SS #4	SS #5	SS #6	SS #7	SS #8	SS #9	SS #10	TOT MOT	OCCUP
.374 (1801)												
.322 (1801)	.143 (1806)											
.222 (1801)	.158 (1806)	.237 (1806)										
.230 (1801)	.145 (1806)	.197 (1806)	.226 (1806)									
.212 (1801)	.149 (1806)	.220 (1806)	.192 (1806)	.168 (1806)								
.225 (1801)	.090 (1806)	.227 (1806)	.288 (1806)	.180 (1806)	.206 (1806)							
.120 (1801)	.069 (1806)	.140 (1806)	.141 (1806)	.177 (1806)	.103 (1806)	.215 (1806)						
.120 (1801)	.071 (1806)	.035 (1806)	.045 (1806)	.012 (1806)	.004 (1806)	.038 (1806)	-.011 (1806)					
.320 (1800)	.204 (1805)	.248 (1805)	.228 (1805)	.143 (1805)	.194 (1805)	.190 (1805)	.141 (1805)	.082 (1805)				
.293 (1800)	.161 (1805)	.218 (1805)	.261 (1805)	.189 (1805)	.167 (1805)	.248 (1805)	.105 (1805)	.082 (1805)	.251 (1805)			
.454 (1812)	.529 (1806)	.484 (1806)	.480 (1806)	.406 (1806)	.480 (1806)	.447 (1806)	.313 (1806)	.408 (1806)	.574 (1805)	.553 (1805)		
.072 (1841)	-.012 (1806)	-.034 (1806)	-.025 (1806)	-.019 (1806)	-.018 (1806)	-.020 (1806)	.021 (1806)	-.009 (1806)	.020 (1805)	.035 (1805)	-.011 (1817)	

b. Center Class Correlations

For the Center sample, the most surprising finding in the correlational analysis was that the attitude profile measures and the student class performance measure were not highly correlated. Nor were any of the performance profile variables correlated highly with Class Performance. In an attempt to isolate the source of this problem individual correlations were run for each of the instructional programs at the Center. Through this analysis it was determined that performance differences between classes were so great that it would be impossible to acquire high correlations between Performance Profile, Attitude Profile and Class Performance variables for the sample as a whole.

Tables 8 thru 27 summarize these findings.

The following is a course by course recap of interesting findings.

(1) Business Procedures (Table 8):

Significant negative correlation ($p = > .05$) between Motivation test score and Aptitude ($r = -.397$)
Significant positive correlations ($p = > .05$) between %age of performance and GPA ($r = .400$), GPAR ($r = .208$) and Achievement ($r = .275$).

(2) Keypunch (Table 9):

A significant positive correlation ($p = > .01$) between % Performance and Maturity Test score ($r = .499$)

(3) Data Processing (Table 10):

A significant positive correlation ($p = > .01$) between Motivation and GPA ($r = .294$) and Motivation and GPAR ($r = .292$); a significant positive correlation ($p = > .01$) between % of

Performance and Achievement test score and between % of Performance and Motivation test score ($p = > .05$, $r = .214$).

(4) Dental Assisting (Table 12):

A significant negative correlation ($p = > .05$) between % of Performance and GPA ($r = -.237$) and between % of Performance and ACH test score ($r = -.279$)

(5) Medical Assisting (Table 13):

Significant positive correlations between % of Performance and GPA ($p = > .01$, $r = .548$); GPAR ($p = > .01$, $r = .544$); ACH ($p = > .01$, $r = .476$); APT ($p = > .01$, $r = .456$) and Motivation test score ($p = > .05$, $r = .198$)

(6) Electro-Mechanical (Table 14):

A significant positive correlation ($p = > .05$) between Maturity test score and % of Performance ($r = .563$)

(7) Major Appliance (Table 15):

A significant positive correlation between % of Performance and GPA ($p = > .01$, $r = .455$) and % of Performance and Achievement ($p = > .05$, $r = .438$)

(8) Office Machine Repair (Table 16):

A significant positive correlation between % of Performance and GPA ($p = > .05$, $r = .657$)

(9) Radio & TV Repair (Table 17):

A significant positive correlation between % of Performance and Maturity test score ($p = > .01$, $r = .554$)

(10) Machine Tool (Table 18):

A significant positive correlation between % of Performance and GPA ($p = >.05$, $r = .376$)

(11) Auto Diagnosis (Table 21):

Significant positive correlations between Motivation test score and GPA ($p = >.05$, $r = .453$) and Motivation test score and Achievement ($p = >.05$, $r = .571$)

(12) Auto Body (Table 22):

Significant positive correlations between Maturity test score and GPAR ($p = >.05$, $r = .384$) and between % of Performance and Maturity test score ($p = >.01$, $r = .401$)

(13) Power Mechanics (Table 25):

High positive correlations between Maturity test score and GPA ($p = >.01$, $r = .524$); between Maturity test score and ACH ($p = >.05$, $r = .490$), between Motivation test score and % of Performance ($p = >.05$, $r = .379$)

(14) Auto Engine Repair (Table 27):

Significant positive correlation between Maturity test score and GPAR ($p = >.05$, $r = .486$)

TABLE 8

CORRELATION MATRIX

BUSINESS PROCEDURES

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.	% PERF.
GPA								
GPAR	.711* (111)							
ACH	.968* (101)	.689* (99)						
APT	.768* (31)	.757* (28)	.694* (28)					
MAT	.108 (116)	.125 (87)	-.010 (79)	-.163 (25)				
MOT	.052 (115)	-.105 (86)	-.094 (78)	-.397** (25)	.506* (137)			
% PERF.	.400* (132)	.208** (103)	.275* (93)	.107 (28)	.115 (124)	.066 (123)		
% PERF.	.209 (9)	.342 (9)	.278 (8)	.869** (4)	.469 (8)	.221 (8)	.417 (9)	

* Level of Significance .01

** Level of Significance .05

TABLE 9

CORRELATION MATRIX

KEYPUNCH

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.	% PERF.
GPA								
GPAR	.827* (55)							
ACH	.832* (53)	.631* (52)						
APT	.964* (4)	.932 (4)	.964** (4)					
MAT	.193 (56)	.094 (40)	.163 (38)	-.425 (4)				
MOT	-.041 (53)	-.161 (39)	-.139 (37)	-.751 (4)	.329* (84)			
% PERF.	.271 (55)	.207 (43)	-.009 (42)	-.988** (4)	.499* (69)	.140 (66)		
% PERF.	-.519 (9)	-.046 (9)	-.355 (7)	.000 (1)	-.359 (10)	-.174 (9)	.274 (10)	

* Level of Significance .01

** Level of Significance .05

TABLE 10

CORRELATION MATRIX

DATA PROCESSING

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.	% PERF.
GPA								
GPAR	.732* (135)							
ACH	.977* (128)	.711* (128)						
APT	.735* (43)	.721* (40)	.776* (40)					
MAT	.111 (93)	.137 (65)	.047 (62)	-.241 (21)				
MOT	.294* (91)	.292* (63)	.229 (60)	.091 (21)	.550* (110)			
% PERF.	.116 (125)	.192 (98)	.214* (92)	.005 (32)	.130 (98)	.214** (96)		
% PERF.	.444* (37)	.306 (37)	.450* (35)	.281 (10)	.037 (30)	.155 (30)	.156 (39)	

* Level of Significance .01

** Level of Significance .05

TABLE 11

CORRELATION MATRIX

AUTO TUNE-UP

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.805* (19)						
ACH	1.000* (16)	.870* (16)					
APT	-1.000 (2)	1.000 (2)	-1.000 (2)				
MAT	.466 (18)	.009 (11)	.284 (9)	.000 (1)			
MOT	.314 (20)	.181 (13)	.336 (11)	.000 (1)	.376 (22)		
% PERF.	.191 (20)	-.195 (13)	.253 (11)	.000 (1)	.127 (15)	.243 (16)	

* Level of Significance .01

** Level of Significance .05

TABLE 12

CORRELATION MATRIX

DENTAL ASSISTING

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.767* (74)						
ACH	.969* (71)	.812* (71)					
APT	.641* (20)	.566** (19)	.642* (19)				
MAT	.021 (74)	.108 (69)	.013 (67)	.057 (20)			
MOT	.056 (73)	.170 (68)	.057 (66)	.187 (20)	.543* (79)		
% PERF.	-.237** (80)	-.224 (74)	-.279** (71)	-.054 (20)	.208 (78)	-.036 (77)	

* Level of Significance .01

** Level of Significance .05

TABLE 13

CORRELATION MATRIX

MEDICAL ASSISTING

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.	% PERF.
GPA								
GPAR	.849* (140)							
ACH	.940* (135)	.753* (133)						
APT	.603* (42)	.547* (41)	.596* (41)					
MAT	.063 (124)	-.015 (115)	.128 (113)	-.071 (35)				
MOT	.068 (123)	.073 (114)	.137 (112)	.116 (35)	.345* (131)			
% PERF.	.548* (143)	.544* (134)	.476* (130)	.456* (41)	.129 (127)	.198** (125)		
% PERF.	.000 (1)	.000 (1)	.000 (1)	.000 (0)	1.000 (2)	-1.000 (2)	-1.000 (2)	

* Level of Significance .01

** Level of Significance .05

TABLE 14

CORRELATION MATRIX

ELECTRO MECHANICAL

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.	% PERF.
GPA								
GPAR	.786 (6)							
ACH	1.000* (5)	.896** (5)						
APT	1.000 (2)	1.000 (2)	1.000 (2)					
MAT	-.656 (6)	-.721 (3)	-1.000 (2)	.000 (1)				
MOT	-.536 (5)	-.889 (3)	-1.000 (2)	.000 (1)	.355 (16)			
% PERF.	.105 (8)	.135 (5)	-.094 (4)	1.000 (2)	.563** (14)	.174 (13)		
% PERF.	.000 (1)	.000 (1)	.000 (1)	.000 (0)	-1.000 (2)	1.000 (2)	-1.000 (2)	

* Level of Significance .01

** Level of Significance .05

TABLE 15

CORRELATION MATRIX

MAJOR APPLIANCE

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.774* (25)						
ACH	.998* (26)	.765* (25)					
APT	.893* (7)	.808** (7)	.893* (7)				
MAT	-.181 (19)	.082 (17)	-.122 (18)	-.864 (5)			
MOT	-.305 (17)	-.339 (15)	-181 (16)	-.932 (4)	.607* (18)		
% PERF.	.455* (25)	.398 (24)	.438** (25)	.719 (7)	.057 (20)	.082 (17)	

* Level of Significance .01

** Level of Significance .05

TABLE 16

CORRELATION MATRIX

OFFICE MACHINE REPAIR

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.629** (12)						
ACH	1.000* (10)	.871* (10)					
APT	.000 (1)	.000 (1)	.000 (1)				
MAT	-.011 (11)	.545 (9)	.215 (8)	.000 (1)			
MOT	.068 (11)	.436 (9)	.373 (8)	.000 (1)	.440 (14)		
% PERF.	.657** (12)	.453 (10)	.534 (10)	.000 (1)	-.217 (12)	.018 (12)	

* Level of Significance .01

** Level of Significance .05

TABLE 17

CORRELATION MATRIX

RADIO & TV REPAIR

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.683* (18)						
ACH	.880* (18)	.743* (18)					
APT	.329 (6)	.850** (6)	.705 (6)				
MAT	.007 (19)	-.080 (14)	.128 (14)	.161 (4)			
MOT	-.161 (19)	-.105 (14)	-.204 (14)	.664 (4)	.592* (25)		
% PERF.	.121 (22)	.106 (17)	-.042 (17)	-.217 (6)	.554* (22)	-.051 (22)	

* Level of Significance .01

** Level of Significance .05

TABLE 18

CORRELATION MATRIX

MACHINE TOOL

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.599* (33)						
ACH	.988* (21)	.733* (21)					
APT	.924 (3)	.679 (3)	.924 (3)				
MAT	.221 (28)	.052 (24)	-.011 (15)	-.444 (3)			
MOT	.213 (28)	-.127 (24)	-.259 (15)	-.338 (3)	.499* (35)		
% PERF.	.376** (34)	.276 (32)	.206 (20)	.998** (3)	.122 (30)	.145 (30)	

* Level of Significance .01

** Level of Significance .05

TABLE 19

CORRELATION MATRIX

WELDING

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.508* (35)						
ACH	.852* (26)	.645* (26)					
APT	-.170 (8)	.611 (8)	.297 (8)				
MAT	-.015 (32)	-.018 (28)	-.202 (20)	.325 (6)			
MOT	-.041 (32)	.072 (28)	-.073 (20)	.250 (6)	.565* (40)		
% PERF.	.143 (35)	-.164 (32)	-.155 (24)	-.420 (8)	.179 (39)	.069 (39)	

* Level of Significance .01

** Level of Significance .05

TABLE 20

CORRELATION MATRIX

AUTO PAINTING

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.723* (22)						
ACH	1.000* (22)	.725* (22)					
APT	.941 (3)	.859 (3)	.949 (3)				
MAT	-.027 (16)	.163 (13)	.025 (13)	-1.000 (2)			
MOT	.145 (16)	.254 (13)	.263 (13)	-1.000 (2)	.629* (22)		
% PERF.	.223 (23)	-.039 (20)	.164 (20)	-.247 (3)	.360 (20)	.391 (20)	

* Level of Significance .01

** Level of Significance .05

TABLE 21

CORRELATION MATRIX

AUTO DIAGNOSIS

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.591* (35)						
ACH	.946* (35)	.539* (35)					
APT	.000 (1)	.000 (1)	.000 (1)				
MAT	.087 (24)	.383 (22)	-.043 (22)	.000 (1)			
MOT	.453** (20)	.285 (18)	.571** (18)	.000 (1)	.117 (22)		
% PERF.	.098 (35)	-.157 (35)	.133 (35)	.000 (1)	-.315 (23)	-.265 (19)	

* Level of Significance .01

** Level of Significance .05

TABLE 22

CORRELATION MATRIX

AUTO BODY REPAIR

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.570* (36)						
ACH	.998* (27)	.693* (27)					
APT	.323 (6)	.383 (6)	.324 (6)				
MAT	.102 (35)	.384** (29)	.161 (22)	-.796 (5)			
MOT	-.098 (35)	.027 (30)	.002 (22)	-.311 (5)	.267 (48)		
% PERF.	.119 (42)	.298 (35)	.102 (26)	-.175 (6)	.401* (46)	.168 (46)	

* Level of Significance .01

** Level of Significance .05

TABLE 23

CORRELATION MATRIX

AUTO PARTS

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.778** (8)						
ACH	.962* (8)	.774** (8)					
APT	.000 (0)	.000 (0)	.000 (0)				
MAT	-.410 (8)	-.361 (6)	-.445 (6)				
MOT	-.399 (8)	-.937* (6)	-.906** (6)	.000 (0)	.521 (13)		
% PERF.	.664 (9)	.222 (7)	.632 (7)	.000 (0)	-.071 (10)	.275 (10)	

* Level of Significance .01

** Level of Significance .05

TABLE 24

CORRELATION MATRIX

BRAKES & FRONT END

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.397 (16)						
ACH	.992* (14)	.381 (14)					
APT	.000 (1)	.000 (1)	.000 (1)				
MAT	-.389 (15)	.087 (12)	-.071 (11)	.000 (1)			
MOT	-.194 (15)	.246 (12)	.306 (11)	.000 (1)	.550* (22)		
% PERF.	.238 (16)	.014 (15)	.262 (14)	.000 (1)	.371 (18)	.358 (18)	

* Level of Significance .01

** Level of Significance .05

TABLE 25

CORRELATION MATRIX

POWER MECHANICS

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.656* (38)						
ACH	1.000* (38)	.656* (38)					
APT	.982 (5)	.997* (4)	.982** (4)				
MAT	.524* (31)	.203 (24)	.490** (24)	-.189 (3)			
MOT	.261 (31)	-.012 (24)	.214 (24)	-.999** (3)	.523* (35)		
% PERF.	.169 (42)	-.074 (35)	.203 (35)	-.600 (4)	.270 (30)	.379** (30)	

* Level of Significance .01

** Level of Significance .05

TABLE 26

CORRELATION MATRIX

TRANSMISSION REPAIR

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.680* (24)						
ACH	.995* (24)	.666* (24)					
APT	.909 (4)	.289 (4)	.909 (4)				
MAT	.191 (21)	.315 (20)	.230 (20)	.105 (4)			
MOT	.199 (20)	.179 (19)	.231 (19)	-.006 (4)	.560* (24)		
% PERF.	-.285 (26)	-.251 (24)	-.282 (24)	-.955* (4)	-.082 (22)	-.272 (21)	

* Level of Significance .01

** Level of Significance .05

TABLE 27

CORRELATION MATRIX

AUTO ENGINE REPAIR

	GPA	GPAR	ACH	APT	MAT	MOT	% PERF.
GPA							
GPAR	.672* (36)						
ACH	1.000* (34)	.683* (34)					
APT	-.905 (3)	-.658 (3)	-.905 (3)				
MAT	.262 (23)	.486** (22)	.398 (20)	-.672 (3)			
MOT	.216 (23)	.378 (22)	.194 (20)	-.851 (3)	.702* (38)		
% PERF.	-.017 (33)	.080 (33)	.024 (31)	.813 (3)	.111 (29)	-.072 (29)	

* Level of Significance .01

** Level of Significance .05

c. The Relationship of Class Enrollment and Performance.

Many factors are known to influence Center student Class Performance: ability, achievement, previous experience, and attitudes, as well as factors related to instructor proficiency, school environment, and home environment. From the data available to the project investigators, a qualitative comparison of performance with mode of instruction, grade point average in related subjects (GPAR), Maturity, and Motivation could be made. The classes were rated on two modes of instruction -- those classes employing individualized instruction techniques and those employing traditional classroom approaches. In this analysis, both the GPAR and its correlation with Class Performance were used. Correlations of Maturity and Motivation with Class Performance were also used. Table 28 summarizes these values.

There are several factors that prevent drawing formal conclusions from Table 28. One is the measure of performance; while done consistently (using percent completion of terminal performance objectives), comparisons between courses may not be comparable. There is no substantive data to indicate that fifty percent completion on one course necessarily indicates the same amount of accomplishment as 50 percent completion on another course. Another factor is that the number of students varied considerably from class to class, with some of the course averages based on as few as five students and others as many as 134. Ten of the entries are based on fewer than 30 students. Therefore, this table is more useful as a guide to further research in this area.

Ideally, for example, it would be desirable to make some assumptions about what constitutes effective vocational instruction in this day and age. Since entry-level preparation is the goal, it would be expected that a screening process would allow only those students whose aptitudes and experience indicate a potential for success to enter the course. Given that, ideal instruction would develop students who can make satisfactory progress regardless of what their initial GPA-related, Maturity, or Motivation might be. Indicators of ideal instruction, then, would be a small standard deviation for the Class Performance measurement and low correlations between Class Performance and GPAR, Maturity, and Motivation.

To illustrate how this might come out, recognizing that the data are insufficiently defined to draw a conclusion of significance, we averaged the standard deviations for those courses taught in an individualized instruction mode and those taught conventionally. The average standard deviations are: 22 percent for the first and 27 percent for the latter. If we could have confidence in the comparability of the original data, we would be able to conclude that there is less variability in the performance of the students in the individualized instruction mode, indicating that it is closer to the ideal as effective vocational instruction.

Another illustration is to look at the significant correlations. These are sufficiently different from zero that there is at least a probability of 0.95 that a relationship between a student's Class Performance and his GPA-related, Maturity, or Motivation exists. GPAR, Maturity, and Motivation scores were obtained before the student had progressed very far through the course. If they correlate positively with the student's performances, the mode of instruction would appear to be less ideal than if there is no correlation. If they correlate negatively, the mode of instruction would appear to be more suitable for students with low GPAR, Maturity, or Motivation, as the case may be. The significant correlations appearing in Table 28 are summarized as follows:

Course	Instructional Mode	Significant Correlations
Business Procedure	Individualized	GPAR
Keypunch	Traditional	Maturity
Medical Assisting	Individualized	GPAR, Motivation
Major Appliances	Traditional	GPAR
Radio & TV	Traditional	Maturity
Auto Body	Traditional	Maturity

Of those courses where there is no significant correlation, seven are presented in the traditional mode and five are individualized. There are a total of seven courses in the individualized mode and eleven in the traditional mode. Therefore, approximately 70 percent of the individualized courses and 60 percent of the traditional courses show no significant correlation between performance scores and students' GPAR, Maturity, or Motivation.

TABLE 28

AVERAGE PERCENT OF PERFORMANCE AND AVERAGE GPA RELATED BY CLASS, INCLUDING CORRELATION OF PERFORMANCE WITH GPAR, MATURITY, AND MOTIVATION

COURSE	Individualized Instruction Mode (X)	$\overline{X}$ Perf.	SD Perf.	$\overline{X}$ GPAR	r GPAR/Perf.	r MAT/Perf.	r MOT/Perf.
BUSINESS PROCEDURES	X	30.1	20.4	74.9	.208*	.115	.066
KEYPUNCH		81.7	22.7	62.7	.207	.499**	.140
DATA PROCESSING		83.7	25.1	80.9	.192	.130	.214
AUTO TUNE-UP		57.2	24.5	67.6	-.195	.127	.243
DENTAL ASSISTING	X	97.3	11.6	81.8	-.224	208	-.036
MEDICAL ASSISTING	X	59.7	23.6	77.5	.544**	.129	.198*
ELECTRO MECHANICAL		43.4	30.7	69.8	.135	.563	.174
MAJOR APPLIANCE		37.4	16.5	67.2	.398*	.057	.082
OFFICE MACH. REPAIR		61.5	38.0	74.7	.453	-.217	.018
RADIO & TV REPAIR		38.3	16.8	68.4	.106	.554*	-.051
WELDING	X	71.3	22.8	72.6	-.164	.179	.069
AUTO PAINTING		55.4	25.3	66.7	-.039	.360	.391
AUTO DIAGNOSIS	X	82.6	20.9	80.5	-.157	-.315	-.265
AUTO BODY		84.4	23.2	64.5	.298	.401*	.168
AUTO PARTS		66.8	41.0	72.2	.222	-.071	.275
POWER MECHANICS		59.1	30.5	73.1	-.074	.270	.379
AUTO TRANSMISSION	X	49.0	20.9	73.2	-.251	-.082	-.272
AUTO ENGINE	X	49.4	29.8	71.2	.080	.111	-.072

* Significant at $p < .05$

** Significant at $p < .01$

3. Factor Analysis. For both the vocational Maturity and Motivation measures of the Attitude Survey, a centroid factor analysis was applied (see Part II, Section G).

Three factors were identified for the Maturity measure and 5 factors for the Motivation measure. Loadings for each of the items in the three factors identified for the Maturity index are included in Table 29. Loadings for each of the items in each of the 5 factors of the Motivation test are included in Tables 30. The cut-off level for items to be included in each of the factors was .295. A listing of each of the items in each of the factors for both tests follows. (Tables 29 and 30, 31, 32, 33, 34)

Once factors were identified for the Motivation and Maturity tests an attempt was made to utilize factor scores to differentiate between high and low motivation groups, and between Center and non-Center students. Factor scores on the Motivation test were also correlated with other variables in an attempt to establish relationship and/or patterns of responses.

For correlations of Motivation factor scores with other variables for both Center and non-Center populations, no significant correlations were found (see Tables 35 and 36).

A variety of t tests were performed utilizing the factor scores. The following results were obtained.

a. Center vs. non-Center students (see Table 37)
Factors 2 and 3 differentiated between the two groups (factor 2,$p = .006$; factor 3,$p = .025$). Factor 1 also came very close to meeting the .05 criteria ($p = .057$).

b. Center High vs. Low Motivation Students:(see Table 38):

No significant differences were found.

c. non-Center High vs. Low Motivation Students: (see Table 39)

No significant differences were found.

d. Center vs. non-Center Low Motivation Students: (see Table 40)

Factor 2 differentiated between the 2 groups ($p = .041$)

e. Center vs. non-Center High Motivation:(see Table 41)

Factor 4 differentiated between the two groups ($p = .008$)

TABLE 29

ROTATED FACTOR MATRIX - MATURITY

VAR.	FACTOR 1	VAR.	FACTOR 1	VAR.	FACTOR 2	VAR.	FACTOR 2	VAR.	FACTOR 3	VAR.	FACTOR 3
1	.271	26	.315	1	.011	26	.052	1	.093	26	.023
2	-.131	27	-.081	2	.053	27	.402	2	.349	27	.073
3	.009	28	.181	3	.097	28	.336	3	.265	28	-.181
4	.312	29	.320	4	.089	29	-.021	4	-.070	29	.024
5	-.021	30	-.019	5	.082	30	.042	5	.349	30	.389
6	.324	31	.418	6	.188	31	.023	6	-.087	31	.014
7	-.062	32	.206	7	.059	32	-.270	7	.300	32	.495
8	.097	33	.268	8	-.028	33	.273	8	.483	33	-.165
9	.357	34	.298	9	-.340	34	.145	9	.314	34	-.049
10	.372	35	.339	10	.052	35	.226	10	-.103	35	-.158
11	.359	36	.402	11	.053	36	-.216	11	-.001	36	.160
12	.122	37	.044	12	.065	37	.169	12	-.016	37	.130
13	.009	38	.030	13	.533	38	.209	13	-.173	38	.163
14	-.083	39	-.124	14	.211	39	.476	14	.227	39	.060
15	.391	40	.347	15	-.122	40	-.028	15	-.089	40	.003
16	.399	41	-.093	16	-.159	41	.262	16	.083	41	.260
17	.035	42	-.102	17	.288	42	.281	17	.013	42	.272
18	.403	43	-.052	18	.022	43	.043	18	.002	43	.325
19	-.041	44	.029	19	.336	44	.320	19	.188	44	.082
20	.010	45	-.014	20	.355	45	.277	20	.083	45	.204
21	.062	46	.002	21	.311	46	.275	21	.261	46	.091
22	.043	47	.383	22	.067	47	.015	22	.320	47	-.080
23	.361	48	.325	23	-.163	48	-.132	23	.090	48	.047
24	.431	49	.423	24	-.104	49	-.081	24	.033	49	-.021
25	.404	50	.378	25	.099	50	-.109	25	-.114	50	-.051

TABLE 30

ROTATED FACTOR MATRIX - MOTIVATION

VAR.	FACTOR 1	VAR.	FACTOR 1	VAR.	FACTOR 2	VAR.	FACTOR 2	VAR.	FACTOR 3	VAR.	FACTOR 3
1	.197	21	.084	1	.121	21	.130	1	.205	21	.045
2	-.108	22	.383	2	-.519	22	.078	2	-.029	22	.060
3	-.067	23	-.134	3	.514	23	.027	3	-.027	23	-.133
4	.019	24	-.218	4	-.044	24	-.186	4	-.106	24	.043
5	-.132	25	-.280	5	-.178	25	-.000	5	.549	25	.050
6	-.176	26	-.076	6	.055	26	-.079	6	-.608	26	.051
7	.123	27	-.007	7	-.343	27	-.054	7	-.120	27	-.135
8	.187	28	.478	8	.441	28	.155	8	.184	28	.033
9	.120	29	-.191	9	.072	29	.194	9	.271	29	.548
10	.181	30	-.076	10	-.107	30	-.137	10	-.057	30	-.003
11	.197	31	-.129	11	.108	31	-.213	11	-.159	31	-.551
12	-.533	32	.425	12	-.094	32	.091	12	-.053	32	-.108
13	.132	33	-.518	13	-.623	33	-.225	13	.214	33	-.189
14	-.596	34	-.043	14	.112	34	-.321	14	.062	34	-.032
15	.357	35	.399	15	-.211	35	.431	15	-.104	35	.143
16	.095	36	.170	16	.650	36	.035	16	-.188	36	.084
17	.468	37	-.332	17	-.139	37	-.305	17	-.016	37	-.015
18	-.031	38	.270	18	-.107	38	.207	18	-.186	38	.350
19	-.043	39	-.025	19	.415	39	-.061	19	.081	39	-.074
20	-.297	40	.104	20	-.115	40	.176	20	.121	40	-.269

TABLE 30 (Cont.)

ROTATED FACTOR MATRIX - MOTIVATION (Cont.)

VAR.	FACTOR 4	VAR.	FACTOR 4	VAR.	FACTOR 5	VAR.	FACTOR 5
1	-.069	21	-.089	1	-.201	21	.491
2	-.015	22	.093	2	-.072	22	-.500
3	-.115	23	-.074	3	-.009	23	.331
4	.177	24	.079	4	.237	24	-.383
5	.131	25	-.457	5	.049	25	.055
6	-.156	26	-.088	6	.015	26	-.104
7	.009	27	.568	7	.191	27	.146
8	.022	28	.071	8	-.240	28	-.138
9	.094	29	-.232	9	.620	29	-.051
10	.003	30	.033	10	.164	30	-.051
11	-.074	31	.169	11	-.684	31	.147
12	-.019	32	.083	12	-.054	32	-.043
13	-.154	33	.012	13	-.145	33	-.034
14	-.050	34	.100	14	.027	34	.013
15	.001	35	-.073	15	.063	35	.016
16	.185	36	-.012	16	.079	36	.005
17	-.087	37	.035	17	-.035	37	.018
18	-.719	38	-.026	18	.145	38	-.029
19	.037	39	.000	19	-.022	39	.096
20	.718	40	-.011	20	-.088	40	-.086

TABLE 31

MATURITY TEST ITEMS: FACTOR I

FACTOR I

4. My job hopes always get blasted.
6. Hard workers are usually just afraid to loaf, for fear that the boss might catch them.
10. I can't seem to get myself to do important things.
11. I can't make myself do things that don't interest me.
15. I can't seem to make up my mind about a job.
16. I often wish that people didn't have to work for a living.
18. I want easy money for dates and cars, that's about all.
23. I'll work when I feel like it.
24. I think we should just eat, drink and be merry, for tomorrow we die.
25. You can't make plans for a job because you never know what is going to happen.
26. If I couldn't find a job I liked within a couple of days, I'd stop looking.
29. I don't want any job where I have to work overtime.
31. I expect to be paid well or I won't work hard.
34. A person should never give up any pleasure for his job.
35. I would change to any new job if the pay were better.
36. I find it hard to work under strict rules and regulations.
40. I wouldn't take a job if I had to get up very early in the morning.
47. I never bothered to think about what I'll do with my life.
48. I would play sick to get out of something.
49. I would like a job I don't have to pay much attention to.
50. My job interests are always changing.

TABLE 32

MATURITY TEST ITEMS: FACTORS II AND III

FACTOR II

13. I don't believe any job can be done well unless you follow the rules.
19. I admire people who have good jobs.
20. You have to stay in school to get a good job these days.
21. If you want to get a good job, you must have some education.
27. A good worker doesn't mind a strict boss.
28. The best job is one that is routine.
39. I expect to work as much as I can in my life.
44. It's not too hard to get a job if you have skill and are willing to work.

FACTOR III

2. I like to think about hard problems.
5. I would like to work on a job where I had a chance to use new methods.
7. I'd rather have a job that is interesting, even if I can do work that pays better.
8. I enjoy work where I can figure out my own ways of doing things.
22. I have some hobbies now that will help me in the work I want.
30. I am good at getting ideas.
32. I like work where I can do things in my own way.
43. It's not too hard to get a job if you have skill and are willing to work.

TABLE 33

MOTIVATION TEST ITEMS: FACTORS I AND II

FACTOR I

-3D Get mad at your folks and plan to move out as soon as possible.

-4B Turn it down, why bother.

+4C Turn it down because your old job is easier.

+5A Ask the teacher for directions on solving the problem.

-5D Fake it.

+6B Talk with people about the various jobs that interest you and find out what kind of training you need.

+7D Take it but get all the help you can.

+8D Tell him you'll think it over. His plans and yours may change before graduation.

-9A Leave. Why stick around for nothing

+9C Do the assignment for the class.

-10A Hang loose. Something always turns up.

FACTOR II

-1B One that seems easiest to do.

+1C One that seems to be the biggest challenge.

-2C Wait it out and hope things go back to normal.

+2D Try out new assignments and see if you like them after you get used to them.

-4A Give it a try. If it's too hard, you can ask for your old job back.

+4D Take it. The job sounds interesting and the opportunity is worth the chance.

+5C Go to the library for help.

-9B Talk with friends.

9C Do the assignment for the class.

-10A Hang loose. Something always turns up.

TABLE 34

MOTIVATION TEST ITEMS: FACTORS III, IV AND V

FACTOR III

+2A Quit.

-2B Tell him off.

+8A Tell your friend to forget it. You already know what you want to do.

-8C Tell him you'll take it. Money is more important at this point.

+10B Get some books on different careers. Maybe you'll find something that interests you.

FACTOR IV

-5B Complain that you can't do it.

+5D Fake it.

-7A Get sick for a week. That way they'll give the job to someone else and you'll be off the hook all the way around.

+7C Take it. You can fake it and make a big impression.

FACTOR V

+3A Try to raise your grade point average so you can get a scholarship.

-3C Investigate the possibility of going to college during the evenings and look for a part-time job.

+6A Go to college. It's the only way to get ahead.

-6B Talk with people about the various jobs that interest you and find out what kind of training you need.

+6C Why plan ahead. When the time comes, you won't have any choice in the matter anyhow.

-6D Forget school and get a job now. Your folks are being unreasonable.

A variety of t tests were performed utilizing the factor scores. The following results were obtained:

a. Center vs. non-Center Students (see Table 37)
Factors 2 and 3 differentiated between the two groups (factor 2, $p = .006$; factor 3, $p = .025$). Factor 1 also came very close to meeting the .05 criterion ($p = .057$)

b. Center High vs. Low Motivation Students (see Table 38)
No significant differences were found

c. non-Center High vs. Low Motivation Students (see Table 39)
No significant differences were found

d. Center vs. non-Center Low Motivation Students (see Table 40)
Factor 2 differentiated between the 2 groups ($p = .041$)

e. Center vs. non-Center High Motivation Students (see Table 41)
Factor 4 differentiated between the two groups ($p = .008$)

TABLE 35

CORRELATION OF VARIABLES WITH FACTOR SCORES: CENTER SAMPLE

	Factor 1	2	3	4	5
GPA	-.052 (752)	-.004 (752)	.052 (755)	-.041 (753)	.046 (753)
GPAR	-.098 (617)	.046 (618)	.046 (620)	.031 (618)	-.002 (618)
ACH	-.049 (596)	-.009 (570)	.072 (572)	-.043 (570)	.047 (570)
APT	-.123 (144)	.043 (144)	.057 (144)	.022 (144)	.080 (144)
CURR	-.089 (754)	.055 (754)	.049 (757)	-.058 (755)	-.007 (755)
MATU	.002 (933)	-.011 (933)	-.003 (936)	-.007 (933)	-.012 (934)
MOT	.035 (941)	-.048 (941)	.011 (944)	-.015 (941)	.010 (942)
OCCU	.017 (941)	.007 (941)	-.051 (944)	.025 (941)	.032 (942)
% PERFORMANCE	.012 (827)	-.034 (829)	.007 (830)	.021 (827)	-.050 (828)

TABLE 36

CORRELATIONS OF VARIABLES WITH FACTOR SCORES: NON-CENTER SAMPLE

	Factor 1	2	3	4	5
GPA	.033	.043	-.006	-.011	-.005
	(1580)	(1575)	(1581)	(1579)	(1577)
GPAR	-.003	.024	-.025	-.010	-.021
	(1579)	(1574)	(1580)	(1578)	(1576)
ACH	.017	.004	.033	-.023	-.045
	(1422)	(1417)	(1423)	(1421)	(1420)
APT	-.015	.050	.008	-.012	-.004
	(1473)	(1468)	(1474)	(1472)	(1471)
CURR	-.014	.038	-.040	-.008	-.005
	(1558)	(1553)	(1559)	(1557)	(1555)
MATU	.039	-.015	-.011	.074	.013
	(1811)	(1806)	(1810)	(1810)	(1880)
MOT	.015	-.020	.018	-.003	.012
	(1816)	(1811)	(1815)	(1815)	(1813)
OCCU	-.015	-.044	-.001	.046	.031
	(1816)	(1811)	(1815)	(1815)	(1813)

TABLE 37

NON-CENTER VS CENTER

t-VALUES OF FACTOR SCORES - NON-CENTER AND CENTER

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
FACT 1	Non-C	1816	.03	.98	.02	1.91	2755	.057
	C	941	-.05	1.04	.03			
FACT 2	Non-C	1811	.04	1.01	.02	2.73	2750	.006
	C	941	-.07	.99	.03			
FACT 3	Non-C	1851	-.03	1.00	.02	-2.25	2757	.025
	C	944	.06	.99	.03			
FACT 4	Non-C	1851	-.02	1.00	.02	-1.74	2754	.082
	C	941	.05	.99	.03			
FACT 5	Non-C	1813	-.00	1.00	.02	-.27	2753	.787
	C	942	.01	.99	.03			

TABLE 38

t-VALUES: CENTER HIGH AND LOW FACTOR SCORES

VAR	GROUP	N	$\overline{X}$	SD	SE	t	df	p
FACT 1	H	92	.01	1.05	.11	.47	193	.637
	L	103	-.07	1.05	.10			
FACT 2	H	91	-.23	1.01	.11	-1.22	192	.224
	L	103	-.06	.93	.09			
FACT 3	H	92	.16	1.03	.11	1.51	193	.134
	L	103	-.06	1.00	.10			
FACT 4	H	92	.08	.98	.10	.03	193	.975
	L	103	.08	.93	.09			
FACT 5	H	92	.08	.91	.10	.94	193	.347
	L	103	-.04	.88	.09			

TABLE 39

t-VALUES: NON-CENTER HIGH VS LOW FACTOR SCORES

FACT 1	H	127	.12	1.09	.10	1.33	382	.185
	L	257	-.03	1.05	.07			
FACT 2	H	126	-.09	.87	.08	-1.18	381	.237
	L	257	.04	1.07	.07			
FACT 3	H	127	-.07	.86	.08	-.02	381	.983
	L	256	-.06	1.03	.06			
FACT 4	H	127	.017	1.07	.10	.22	382	.826
	L	257	-.01	1.01	.06			
FACT 5	H	127	.08	1.03	.09	.76	382	.446
	L	257	.00	1.02	.06			

TABLE 40

t-VALUES: CENTER VS NON-CENTER LOW FACTOR SCORES

VAR	GROUP	N	$\overline{X}$	SD	SE	t	df	p
FACT 1	Non-C	191	-.20	.90	.07	-.35	264	.723
	C	75	-.16	.96	.11			
FACT 2	Non-C	257	.40	.29	.02	2.05	358	.041
	C	102	.33	.29	.03			
FACT 3	Non-C	257	22.62	30.08	1.88	1.11	358	.267
	C	103	23.78	28.71	2.83			
FACT 4	Non-C	257	.42	.65	.04	1.60	358	.110
	C	103	.30	.52	.05			
FACT 5	Non-C	257	43.33	29.65	1.85	-.65	358	.518
	C	103	45.55	28.77	2.84			

TABLE 41

t-VALUES: CENTER VS NON-CENTER HIGH MOTIVATION *

FACT 1	Non-C	96	-.14	.96	.10	-.01	161	.994
	C	67	-.13	.92	.11			
FACT 2	Non-C	127	.40	.30	.02	.97	217	.331
	C	92	.36	.26	.03			
FACT 4	Non-C	127	.22	.45	.04	-2.67	217	.008
	C	92	.41	.61	.06			

* Data on Factors 3 and 5 were inaccurate

In an attempt to identify "high" and "low" Motivation groups, a variety of t tests comparing Center and non-Center students receiving factor scores +.50 SD above the Mean and -.50 SD below the Mean were also made. The following results were obtained:

a. non-Center Students - factor 1: (see Table 42)

The only significant difference utilizing +.500 and -.500 factor 1 scores for all variables was on factor 2 (p = .001), with high positive students receiving a negative score on factor 2. The GPA variable P was .096, which although above the criterion level still indicated a trend in favor of students with + .050 factor scores.

b. Center Students - factor 1: (see Table 43)

Significant differences were found for GPAR (p = .009) and Curriculum (p = .005). For GPAR, low negative factor 1 scores yielded a significantly higher Mean GPAR score. For Curriculum more students scoring low negative were in the College Preparatory group.

c. For non-Center Students: (see Table 44)

Significant differences utilizing high and low factor 2 scores were obtained on occupational choice (p = .022) and for factor 4 scores (p = .021). non-Center students with high positive scores on factor 2 chose more jobs at the professional end of the continuum and also scored positively on factor 4. Factor 2 also tended to differentiate on GPA for non-Center student (p = .056) with high positive scores corresponding to higher GPA's. However this difference was not significant at the .05 criterion level.

d. For Center Students (see Table 45)

No significant differences were found on Factor 2.

e. For Both non-Center and Center Students (Tables 46 and 47 for Factor 3)

No significant differences between + .500 and -.500 above and below the Means were found.

f. Factor 4: (see Tables 48 & 49)

No significant differences were found for the Center population. For the non-Center population significant differences were found on the Maturity test ($p = .002$), with high positive students scoring higher on the Maturity test than low negative students. A significant difference was also found on the occupational choice variable ($p = .052$), with low negative students choosing more occupations toward the professional end of the continuum.

g. Factor 5: (see Tables 50 & 51)

No significant differences were found between either the Center or the non-Center high and low groups on any of the variables.

In summary then, although it was possible to identify 5 factors for the Maturity measure, factor scores based on these factors yielded little or no data which systematically differentiated between groups on any of the project variables. Use of the factor scores was abandoned for raw scores data which tended both to be stable and to differentiate between high and low Motivation groups in a systematic fashion.

TABLE 42

t-VALUES: NON-CENTER FACTOR 1 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	607	67.02	20.64	.84	1.67	962	.096
	L-	357	64.74	20.38	1.08			
GPAR	H+	606	81.11	15.30	.62	.15	961	.881
	L-	357	86.96	14.04	.74			
ACH	H+	547	57.22	26.85	1.15	.45	862	.653
	L-	317	56.39	24.81	1.39			
APT	H+	571	60.29	24.90	1.04	-.55	902	.585
	L-	333	61.21	23.62	1.29			
CURR	H+	597	1.65	.48	.02	-.34	947	.735
	L-	352	1.66	.48	.03			
MAT	H+	686	35.73	5.65	.22	.40	1096	.690
	L-	412	35.59	5.45	.27			
MOT	H+	688	11.61	5.67	.22	.06	1099	.948
	L-	413	11.58	6.99	.34			
OCCU	H+	688	2.20	2.57	.10	-.67	1099	.500
	L-	413	2.31	2.64	.13			
F 2	H+	686	-.10	.85	.03	-3.41	1096	.001
	L-	412	.12	1.21	.06			
F 3	H+	688	-.04	.93	.04	.34	1098	.736
	L-	412	-.06	1.09	.05			
F 4	H+	688	-.04	.91	.04	-.88	1099	.379
	L-	413	.01	1.07	.05			
F 5	H+	687	.07	.86	.03	1.53	1098	.126
	L-	413	-.02	1.22	.06			

TABLE 43

t-VALUES: CENTER FACTOR 1 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	260	59.07	18.61	1.54	-1.59	441	.112
	L-	183	61.92	18.41	1.36			
GPAR	H+	211	73.98	15.21	1.05	-2.64	360	.009
	L-	151	78.06	13.47	1.10			
ACH	H+	195	61.40	18.52	1.33	-.73	333	.465
	L-	140	62.87	17.62	1.49			
APT	H+	44	63.32	13.93	2.10	-.94	74	.351
	L-	32	66.72	17.63	3.12			
CURR	H+	264	1.30	6.46	.03	-2.83	444	.005
	L-	182	1.43	.50	.04			
TOT MAT	H+	328	36.70	5.66	.31	.01	550	.995
	L-	224	36.69	5.93	.40			
TOT MOT	H+	330	12.90	7.58	.42	1.23	552	.219
	L-	224	12.17	5.39	.36			
OCCUP	H+	330	4.03	2.91	.16	.58	552	.561
	L-	224	3.88	2.91	.19			
F 2	H+	329	-.09	.84	.05	.72	551	.469
	L-	224	-.16	1.18	.08			
F 3	H+	330	.006	.98	.05	-1.09	552	.275
	L-	224	.010	1.01	.07			
F 4	H+	329	-.024	.87	.05	-1.52	550	.128
	L-	223	.102	1.05	.07			
F 5	H+	330	.085	.84	.05	1.69	552	.093
	L-	224	-.060	1.18	.08			

TABLE 44

t-VALUES: NON-CENTER FACTOR 2 HIGH AND LOW GROUPS

VAR	Group	N	$\bar{X}$	SD	SE	t	df	p
GPA	H+	595	66.83	19.93	.82	1.92	1039	.056
	L-	446	64.42	20.29	.96			
GPAR	H+	594	81.20	15.15	.62	1.14	1038	.256
	L-	446	80.13	14.96	.71			
ACH	H+	545	57.30	25.84	1.11	-.08	935	.938
	L-	392	57.43	25.19	1.27			
APT	H+	560	61.93	23.82	1.01	1.60	973	.111
	L-	415	59.48	23.60	1.16			
CURR	H+	588	1.67	.47	.02	1.51	1024	.130
	L-	438	1.62	.49	.02			
MAT	H+	684	35.61	5.51	.21	.18	1199	.856
	L-	517	35.55	5.75	.25			
MOT	H+	684	11.43	4.89	.19	-.22	1202	.825
	L-	520	11.49	5.30	.23			
OCCU	H+	468	2.01	2.54	.10	-2.29	1202	.022
	L-	520	2.35	2.63	.12			
F 1	H+	684	-.06	.86	.03	-1.50	1201	.133
	L-	519	.03	1.18	.05			
F 3	H+	684	-.04	.97	.04	-.16	1201	.869
	L-	519	-.03	1.03	.05			
F 4	H+	683	.03	.98	.04	2.32	1200	.021
	L-	519	-.11	1.03	.05			
F 5	H+	682	-.02	.98	.04	-.58	1199	.562
	L-	519	.01	1.07	.05			

TABLE 45

t-VALUES: CENTER FACTOR 2 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	230	59.43	19.64	1.30	.25	466	.806
	L-	238	59.00	18.33	1.19			
GPAR	H+	189	76.71	14.87	1.08	1.24	383	.218
	L-	196	74.84	14.79	1.06			
ACH	H+	174	61.22	19.01	1.44	-.36	352	.722
	L-	180	61.92	17.87	1.33			
APT	H+	40	64.88	16.53	2.61	.40	86	.693
	L-	48	63.56	14.51	2.09			
CURR	H+	232	1.41	.49	.03	1.68	469	.093
	L-	239	1.33	.47	.03			
TOT MAT	H+	292	36.76	5.53	.32	-.62	588	.537
	L-	298	37.04	5.48	.31			
TOT MOT	H+	295	12.34	4.83	.28	-1.56	592	.119
	L-	299	13.18	7.82	.45			
OCCU	H+	295	3.98	2.85	.17	-.35	592	.724
	L-	299	4.06	2.94	.17			
F 1	H+	294	-.04	.86	.05	1.22	589	.223
	L-	297	-.14	1.22	.07			
F 3	H+	295	.01	.96	.06	-.59	592	.553
	L-	299	.06	1.08	.06			
F 4	H+	294	-.01	.94	.06	-1.25	590	.213
	L-	298	.09	.99	.06			
F 5	H+	295	-.06	.86	.05	-.34	591	.732
	L-	298	-.04	1.00	.06			

TABLE 46

t-VALUES: NON-CENTER FACTOR 3 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	511	65.71	20.42	.90	-.28	1030	.777
	L-	521	66.07	20.05	.88			
GPAR	H+	512	50.46	15.14	.67	-1.49	1030	.136
	L-	520	81.82	13.98	.61			
ACH	H+	465	57.42	26.70	1.24	1.00	928	.318
	L-	465	55.70	25.81	1.18			
APT	H+	476	60.23	24.55	1.13	-.18	959	.854
	L-	485	60.52	24.52	1.11			
CURR	H+	496	1.64	.48	.02	-1.12	1010	.264
	L-	516	1.67	.47	.02			
MAT	H+	575	35.65	5.69	.24	-.47	1182	.641
	L-	609	35.80	5.31	.22			
MOT	H+	578	11.47	4.88	.20	-.39	1185	.697
	L-	609	11.58	4.92	.20			
OCCU	H+	578	2.21	2.59	.11	.23	1185	.816
	L-	609	2.18	2.63	.11			
F 1	H+	578	.02	.92	.04	.15	1185	.877
	L-	609	.01	.95	.04			
F 2	H+	575	.01	.95	.04	-.18	1181	.861
	L-	608	.02	1.04	.04			
F 4	H+	577	.02	1.03	.04	.59	1183	.558
	L-	608	-.02	.97	.04			
F 5	H+	575	-.03	1.02	.04	-.30	1182	.765
	L-	609	-.01	.96	.04			

TABLE 47

t-VALUES: CENTER FACTOR 3 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	252	59.28	18.96	1.19	.65	472	.516
	L-	222	58.14	18.97	1.27			
GPAR	H+	198	75.34	15.64	1.11	.74	385	.458
	L-	189	74.17	15.31	1.11			
ACH	H+	182	62.44	17.70	1.31	1.31	355	.190
	L-	175	59.90	18.78	1.42			
APT	H+	42	63.64	14.39	2.22	.13	86	.900
	L-	46	63.22	17.13	2.53			
CURR	H+	253	1.37	.48	.03	1.15	472	.253
	L-	221	1.32	.47	.03			
MAT	H+	318	36.66	5.31	.30	.16	586	.872
	L-	270	36.59	5.42	.33			
MOT	H+	320	12.49	5.05	.28	.57	589	.571
	L-	271	12.25	5.18	.32			
OCCU	H+	320	3.94	2.95	.17	-.84	589	.400
	L-	271	4.14	2.87	.17			
F 1	H+	319	-.05	.93	.05	-.71	586	.479
	L-	269	.01	1.14	.07			
F 2	H+	319	-.09	.93	.05	.18	587	.858
	L-	270	-.11	1.02	.06			
F 4	H+	319	.05	1.02	.06	.43	587	.664
	L-	270	.02	.94	.06			
F 5	H+	319	-.01	.99	.06	-1.50	588	.134
	L-	271	.12	1.01	.06			

TABLE 48

t-VALUES: NON-CENTER FACTOR 4 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	548	66.13	20.45	.87	.22	1061	.826
	L-	515	65.85	19.71	.87			
GPAR	H+	548	80.91	14.52	.62	.04	1060	.970
	L-	514	80.88	15.44	.68			
ACH	H+	500	57.53	25.95	1.16	-.38	958	.706
	L-	460	58.17	26.03	1.21			
APT	H+	515	61.76	24.42	1.08	.35	989	.729
	L-	476	61.22	24.22	1.11			
CURR	H+	538	1.65	.48	.02	.07	1048	.943
	L-	512	1.65	.48	.02			
MAT	H+	611	36.00	5.38	.22	3.19	1211	.002
	L-	602	34.99	5.70	.23			
MOT	H+	614	11.61	5.33	.22	.76	1215	.446
	L-	603	11.38	5.00	.20			
OCCU	H+	614	2.28	2.56	.10	1.95	1215	.052
	L-	603	2.00	2.51	.10			
F 1	H+	614	-.02	.88	.04	-.61	1214	.543
	L-	602	.01	.99	.04			
F 2	H+	614	.10	1.01	.04	1.72	1210	.086
	L-	598	-.00	.99	.04			
F 3	H+	614	.09	1.00	.04	1.49	1213	.135
	L-	601	.01	.97	.04			
F 5	H+	611	-.06	.96	.04	-.29	1212	.774
	L-	603	-.05	.97	.04			

FIGURE 49

t-VALUES: CENTER FACTOR 4 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GAP	H+	276	58.28	19.24	1.16	-1.09	495	.275
	L-	221	60.16	18.79	1.26			
GPAR	H+	218	74.64	15.84	1.07	.02	402	.988
	L-	186	74.61	15.76	1.56			
ACH	H+	200	59.61	19.06	1.35	-1.33	376	.184
	L-	178	62.16	18.14	1.36			
APT	H+	51	63.67	17.73	2.48	.76	94	.451
	L-	45	61.02	16.28	2.43			
CURR	H+	276	1.34	.47	.03	-1.24	494	.215
	L-	220	1.39	.49	.03			
MAT	H+	333	36.87	5.37	.29	.86	598	.391
	L-	267	36.48	5.76	.35			
MOT	H+	334	12.55	7.60	.42	-.34	603	.735
	L-	271	12.73	4.90	.30			
OCCU	H+	334	4.20	2.99	.16	.67	603	.505
	L-	271	4.04	2.86	.17			
F 1	H+	333	-.13	.96	.05	-1.01	600	.313
	L-	269	-.04	1.05	.06			
F 2	H+	334	-.11	1.01	.06	-1.24	601	.214
	L-	269	-.01	.97	.06			
F 3	H+	334	.12	.97	.05	-.06	603	.951
	L-	271	.13	.98	.06			
F 5	H+	334	-.17	.91	.05	-1.46	602	.145
	L-	270	-.06	.92	.06			

TABLE 50

t-VALUES: NON-CENTER FACTOR 5 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	430	64.86	20.96	1.01	-.36	986	.718
	L-	558	65.34	20.63	.87			
GPAR	H+	430	80.33	15.61	.75	-.61	987	.545
	L-	559	80.92	14.77	.63			
ACH	H+	389	54.86	26.09	1.32	-1.75	887	.081
	L-	500	57.95	26.15	1.17			
APT	H+	407	59.72	24.12	1.20	-.44	922	.657
	L-	517	60.44	24.59	1.08			
CURR	H+	425	1.63	.48	.02	-.15	975	.884
	L-	552	1.63	.48	.02			
MAT	H+	494	35.81	5.61	.25	1.19	1136	.233
	L-	644	35.41	5.48	.22			
MOT	H+	496	11.83	5.47	.25	.94	1140	.346
	L-	646	11.49	6.41	.25			
OCCU	H+	496	2.59	2.59	.12	1.26	1140	.208
	L-	646	2.06	2.52	.10			
F 1	H+	496	-.09	1.18	.05	.17	1139	.864
	L-	645	-.10	.91	.04			
F 2	H+	495	.03	1.03	.05	1.13	1134	.258
	L-	641	-.04	1.03	.04			
F 3	H+	496	.09	1.02	.05	.84	1138	.404
	L-	644	.04	.99	.04			
F 4	H+	496	.01	.99	.05	1.06	1140	.289
	L-	646	-.05	1.02	.04			

TABLE 51

t-VALUES: CENTER FACTOR 5 HIGH AND LOW GROUPS

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H+	225	61.25	18.87	1.26	1.23	483	.218
	L-	260	59.15	18.63	1.16			
GPAR	H+	184	76.58	14.39	1.06	.30	393	.768
	L-	211	76.13	15.66	1.08			
ACH	H+	164	63.70	17.49	1.37	1.32	363	.189
	L-	201	61.21	18.23	1.29			
APT	H+	46	65.00	15.14	2.32	.42	87	.678
	L-	43	63.67	14.86	2.27			
CURR	H+	224	1.38	.49	.03	.26	483	.792
	L-	261	1.37	.48	.03			
MAT	H+	277	36.67	5.33	.32	-.60	601	.552
	L-	326	36.93	5.40	.30			
MOT	H+	278	12.74	4.78	.29	.56	607	.577
	L-	331	12.45	7.61	.42			
OCCU	H+	278	4.20	2.82	.17	.65	607	.516
	L-	331	4.05	3.05	.17			
F 1	H+	277	-.12	1.15	.07	.27	605	.786
	L-	330	-.14	.94	.05			
F 2	H+	276	-.15	1.02	.06	-.80	604	.424
	L-	330	-.09	.96	.05			
F 3	H+	278	.14	1.05	.06	.07	607	.941
	L-	331	.13	.94	.05			
F 4	H+	277	.06	.94	.06	-.41	604	.679
	L-	329	.09	1.03	.06			

4. Population Comparisons

a. Center Students vs. non-Center Students

In a general comparison of Center vs. non-Center Students as two groups on the Performance and Attitude variables, the following results were obtained (see Table 52).

Non-Center students had higher GPA's (p = 0.000) than did Center Students, and also had higher GPAR's (p = 0.000). However, Center Students were higher on achievement (p = 0.001) and aptitude scores (p = -.011) than were non-Center Students.

Significantly more non-Center Students (p = 0.000) were categorized as participating in the college preparatory program. Center students received higher scores on both the Maturity test (p = 0.000) and the Motivation test (p = 0.000). On the item scores for the Motivation test, Center students received significantly higher scores on items 1, 4, 5, 9 and 10. Mean differences were in the right direction on items 2 and 6. Non-Center students received higher mean scores on items 3, 7 and 8, but these differences were not significant at the .05 level.

Thus the general picture for a comparison of Center vs. non-Center Students is that non-Center Students as a group perform better in school, but do not score as high on standard achievement and ability tests as do Center students as a group. Unfortunately, results of the aptitude variable cannot be reliably interpreted, since so many of the scores were unavailable for Center students.

Center students score higher on the Maturity and Motivation attitude tests, and a greater portion of Center students are in the general education program rather than the college preparatory program.

A second general comparison of Center Students vs. non-Center Students was made utilizing the college preparatory and general education sub-populations. For the non-Center group these findings indicated the following: (see Tables 53 and 54)

For students participating in college preparatory programs, non-Center students obtained higher GPAR's ($p = 0.000$) and also had higher GPA's as a group ($p = 0.093$) although not significantly so, than did Center students. Center students scored higher on Achievement tests ($p = 0.002$) and received higher scores on both the Maturity ($p = 0.000$) and Motivation ($p = 0.000$) tests. Non-Center college preparatory students as a group indicated significantly more job choices at the professional end of the scale than did Center students ($p = 0.000$), and significantly more Center students in the college preparatory category had had jobs before or presently had jobs ($p = 0.002$).

For Center and non-Center Students participating in general education programs, Center students obtained signifcantly higher scores on GPA, ACH and APT Measures. While differences between the two groups was not significant at the .05 level or better, the Center Mean score was also higher on the GPAR variable ($p =0.118$). Center students in the general education category also received higher scores on

TABLE 52

t-VALUES: CENTER TOTAL VS NON-CENTER TOTAL SAMPLE

						POOLED VARIANCE ESTIMATE		
VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	Non-C	8749	62.02	22.86	6.244	5.58	9804	0.000
	Center	1057	57.94	19.08	0.587			
GPAR	Non-C	8696	79.40	17.26	0.185	7.78	9575	0.000
	Center	881	74.70	15.37	0.518			
ACH	Non-C	7222	55.22	26.69	0.314	-5.00	8035	0.001
	Center	815	60.03	18.42	0.645			
APT	Non-C	7474	58.31	26.28	0.304	-2.58	7667	0.011
	Center	195	63.18	17.22	1.233			
CURR	Non-C	8679	1.60	0.489	0.005	17.31	9732	0.000
	Center	1055	1.33	0.470	0.014			
TOT MAT	Non-C	1889	35.56	5.53	0.127	-5.62	2851	0.000
	Center	964	36.79	5.49	0.177			
TOT MOT	Non-C	1817	11.57	5.62	0.132	-4.59	2759	0.000
	Center	944	12.63	5.97	0.194			
MOT 1	Non-C	1806	0.35	1.69	0.040	-8.23	2746	0.000
	Center	942	0.89	1.51	0.049			
MOT 2	Non-C	1806	1.45	0.83	0.020	-1.68	2746	0.093
	Center	942	1.51	0.85	0.028			
MOT 3	Non-C	1806	1.69	0.67	0.616	0.58	2746	0.559
	Center	942	1.68	0.69	0.022			
MOT 4	Non-C	1806	1.55	0.66	0.015	-1.95	2746	0.051
	Center	942	1.60	0.66	0.021			
MOT 5	Non-C	1806	1.21	1.09	0.026	-2.03	2746	0.042
	Center	942	1.29	0.92	0.030			

TABLE 52 (Continued)

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
MOT 6	Non-C	1806	1.69	0.64	0.015	-0.33	2746	0.738
	Center	942	1.70	0.67	0.022			
MOT 7	Non-C	1806	6.96	0.58	0.014	0.69	2746	0.488
	Center	942	0.95	0.61	0.020			
MOT 8	Non-C	1806	0.19	1.83	0.043	1.91	2746	0.056
	Center	942	0.06	1.75	0.057			
MOT 9	Non-C	1805	1.33	1.23	0.029	-4.31	2745	0.000
	Center	942	1.54	1.08	0.035			
MOT 10	Non-C	1805	1.09	1.14	0.027	-5.90	2745	0.000
	Center	942	1.35	1.00	0.032			

TABLE 53

t-VALUES: NON-CENTER VS CENTER COLLEGE PREP STUDENTS

VAR	Group	N	$\bar{X}$	SD	SE	t	df	p
GPA	Non-C	5234	71.45	19.17	0.265	1.68	5580	0.093
	Center	348	69.68	13.37	0.824			
GPAR	Non-C	5229	86.04	12.42	0.172	4.60	5524	0.000
	Center	297	82.65	11.35	0.658			
ACH	Non-C	4518	66.45	22.98	0.342	-3.14	4779	0.002
	Center	283	70.80	14.31	0.851			
APT	Non-C	4647	69.15	22.09	0.324	-.68	4761	0.498
	Center	116	70.55	14.04	1.304			
MAT	Non-C	1027	35.94	5.53	0.173	-7.21	1294	0.000
	Center	269	38.64	5.13	0.312			
MOT	Non-C	1004	11.87	5.81	0.183	-3.94	1271	0.000
	Center	269	13.57	7.76	0.473			
OCC	Non-C	1009	1.81	2.31	0.073	-12.23	1276	0.000
	Center	269	3.84	2.77	0.169			
JOB	Non-C	1009	1.51	1.18	0.037	3.09	1275	0.002
	Center	268	1.29	0.46	0.038			
MOT 1	Non-C	996	0.42	1.71	0.054	-2.95	1263	0.003
	Center	269	0.75	1.44	0.088			
MOT 2	Non-C	996	1.50	0.79	0.025	-2.40	1263	0.017
	Center	269	1.63	0.67	0.041			
MOT 3	Non-C	996	1.72	0.61	0.019	-1.61	1263	0.107
	Center	269	1.79	0.57	0.035			
MOT 4	Non-C	996	1.54	0.64	0.021	-2.23	1263	0.026
	Center	269	1.64	0.59	0.036			
MOT 5	Non-C	996	1.25	1.11	0.035	-1.63	1263	0.104
	Center	269	1.37	0.90	0.055			

TABLE 53 (Continued)

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
MOT 6	Non-C	996	1.71	0.58	0.018	-2.21	1263	0.028
	Center	269	1.80	0.49	0.030			
MOT 7	Non-C	996	0.97	0.55	0.018	-0.46	1263	0.649
	Center	269	0.99	0.49	0.030			
MOT 8	Non-C	996	0.28	1.74	0.055	0.47	1263	0.635
	Center	269	0.22	1.74	0.106			
MOT 9	Non-C	996	1.34	1.22	0.039	-2.65	1236	0.008
	Center	269	1.56	1.03	0.036			
MOT 10	Non-C	996	1.07	1.14	0.036	-5.02	1263	0.000
	Center	269	1.45	0.90	0.055			

TABLE 54

t-VALUES: NON-CENTER VS CENTER GENERAL EDUCATION STUDENTS

VAR	Group	N	$\bar{X}$	SD	SE	t	df	p
GPA	Non-C	3409	47.66	20.40	0.349	-5.51	4100	0.000
	Center	693	52.25	18.00	0.684			
GPAR	Non-C	3411	69.36	18.61	0.319	-1.56	3980	0.118
	Center	571	70.65	15.50	0.649			
ACH	Non-C	2644	36.26	21.22	0.413	-18.23	3163	0.000
	Center	521	54.35	17.79	0.779			
APT	Non-C	2761	40.16	22.60	0.430	-4.18	2833	0.000
	Center	74	51.22	15.00	1.744			
MAT	Non-C	582	34.94	5.53	0.229	-4.05	1083	0.000
	Center	503	36.30	5.49	0.245			
MOT	Non-C	555	11.12	5.45	0.231	-3.67	1041	0.000
	Center	488	12.31	5.00	0.227			
MOT 1	Non-C	552	0.26	1.65	0.070	-6.63	1036	0.000
	Center	486	0.92	1.53	0.069			
MOT 2	Non-C	552	1.41	0.85	0.036	-1.67	1036	0.096
	Center	486	1.50	0.86	0.039			
MOT 3	Non-C	552	1.63	6.75	0.032	-0.17	1036	0.865
	Center	486	1.64	0.70	0.032			
MOT 4	Non-C	552	1.58	0.64	0.027	-0.87	1036	0.386
	Center	486	1.61	0.66	0.030			
MOT 5	Non-C	552	1.15	1.05	0.045	-1.39	1036	0.166
	Center	486	1.24	0.94	0.043			

TABLE 54 (Continued)

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
MOT 6	Non-C	552	1.63	6.72	0.031	-0.49	1036	0.625
	Center	486	1.65	6.74	0.033			
MOT 7	Non-C	552	0.94	0.66	0.028	0.09	1036	0.926
	Center	486	0.94	0.64	0.029			
MOT 8	Non-C	552	0.002	1.76	0.075	-0.21	1036	0.834
	Center	486	0.025	1.75	0.079			
MOT 9	Non-C	552	1.33	1.21	0.051	-2.49	1036	0.013
	Center	486	1.51	1.12	0.051			
MOT 10	Non-C	552	1.09	1.14	0.049	-3.82	1036	0.000
	Center	486	1.34	0.99	0.045			
OCCUP	Non-C	569	2.77	2.90	0.121	-8.56	1062	0.000
	Center	495	4.30	2.93	0.132			
JOB	Non-C	568	1.54	1.39	0.058	2.28	1060	0.023
	Center	494	1.36	1.13	0.051			

the Motivation and Maturity measures, and more Center Students in this group had had or held jobs. As with the college preparatory group, Center students tended to choose jobs at the blue-collar end of the occupational choice continuum ($X = 4.30$) whereas non-Center students choose occupations at the professional end of the continuum ($X = 2.77$). It is interesting to note that the Mean occupational choice score is lower ($X = 1.81$) for the non-Center college preparatory group and for the Center college preparatory group ($X = 3.84$) than for either of the general education groups.

b. Within Center Comparisons

A third type of comparison involved a comparison of both the Center and non-Center populations by job vs. no job sub-groups. For the non-Center sample, students having no job scored significantly higher on the following variables: (see Table 55)

a. GPA ($p = 0.000$)
b. GPAR ($p = 0.030$)
c. ACH ($p = -.012$)
d. MOT ($p = 0.004$)
e. OCC ($p = .004$)

Aptitude scores were not significantly different at the .05 level ($p = .058$) for this population, but the direction of the difference was the same as for the above variables. There was virtually no difference between the Mean scores for the job and no job groups on the motivation measure.

For the job-no-job sub-groups of the Center population (see Table 56) students having no job scored significantly higher on the following variables:

a. GPA (p = 0.002)
b. ACH (p = 0.001)

Students having a job scored significantly higher on the Maturity measure (p = 0.000) than did students with no job. There were no other significant differences between the two groups on any of the other variables.

A comparison of Center general education vs. college preparatory Students for the Center population yielded the following results (see Table 57): College preparatory students were higher on the following variables:

GPA (p = 0.000)
GPAR (p = 0.000)
ACH (p = 0.000)
APT (p = 0.000)
MAT (p - 0.000)
MOT (p = 0.007)
OCCUP. (p = 0.034)
TOTAL PERFORMANCE (p = 0.000)

The only variable where there was no significant difference between the two groups was that of job (p = 0.338).

TABLE 55

t-VALUES: NON-CENTER SAMPLE, JOB VS NO JOB

VAR	Group	N	$\bar{X}$	SD	SE	t	df	p
GPA	No Job	566	68.10	20.88	0.878	3.85	1597	0.000
	Job	1033	63.96	20.39	0.635			
GPAR	No Job	565	81.74	15.39	0.647	2.17	1596	0.030
	Job	1033	80.01	15.07	0.469			
ACH	No Job	503	58.91	26.65	1.188	2.51	1435	0.012
	Job	934	55.28	25.86	0.846			
APT	No Job	522	61.86	24.58	1.076	1.90	1489	0.058
	Job	969	59.34	24.43	0.785			
CURRIC	No Job	559	1.67	0.471	0.020	1.79	1575	0.073
	Job	1018	1.62	0.485	0.015			
MAT	No Job	646	35.46	5.46	0.215	-0.74	1839	0.457
	Job	1195	35.66	5.57	0.161			
MOT	No Job	638	12.04	6.14	0.243	2.86	1814	0.004
	Job	1178	11.27	5.11	0.149			
OCCU	No Job	647	1.98	2.46	0.097	-2.95	1843	0.004
	Job	1198	2.35	2.68	0.077			

TABLE 56

t-VALUES: CENTER SAMPLE, JOB VS NO JOB

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	No Job	194	63.17	18.28	1.312	3.15	752	0.002
	Job	510	58.27	18.80	0.794			
GPAR	No Job	157	76.78	15.07	1.202	1.10	618	0.272
	Job	463	75.14	15.18	0.706			
ACH	No Job	145	65.97	16.55	1.375	3.46	570	0.001
	Job	427	60.00	18.44	0.892			
APT	No Job	39	65.10	13.19	2.112	0.89	140	0.376
	Job	103	62.38	17.35	1.710			
CURRCI	No Job	196	1.40	0.49	0.035	1.52	754	0.128
	Job	560	1.34	0.47	0.020			
MAT	No Job	250	35.74	5.81	0.368	-3.64	931	0.000
	Job	683	37.21	5.31	0.203			
MOT	No Job	250	12.38	4.98	0.315	-0.72	931	0.469
	Job	683	12.70	6.33	0.242			
OCCU	No Job	253	4.05	2.88	0.181	0.09	940	0.028
	Job	689	4.03	2.94	0.112			
PERF	No Job	219	70.56	29.94	2.023	1.27	826	0.205
	Job	609	66.15	48.23	1.954			

TABLE 57

t-VALUES: CENTER SAMPLE, GENERAL ED VS COLLEGE PREP

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	CP	346	69.64	15.38	6.827	15.36	1036	0.000
	Gen	692	52.26	18.01	0.685			
GPAR	CP	295	82.61	11.37	0.662	11.69	863	0.000
	Gen	570	70.68	15.50	0.649			
ACH	CP	281	70.77	14.35	0.856	13.29	799	0.000
	Gen	520	54.42	17.73	0.778			
APT	CP	114	70.33	14.06	1.317	8.73	185	0.000
	Gen	73	51.70	14.51	1.699			
MAT	CP	269	38.64	5.13	0.312	5.76	770	0.000
	Gen	503	36.30	5.49	0.245			
MOT	CP	269	13.57	7.76	0.473	2.69	755	0.007
	Gen	488	12.31	5.00	0.227			
OCC	CP	269	3.84	2.77	0.169	-2.13	762	0.034
	Gen	495	4.30	2.93	0.132			
JOB	CP	268	1.29	0.46	0.028	-0.95	760	0.338
	Gen	494	1.36	1.13	0.051			
PERF	CP	296	72.60	60.40	3.511	3.91	912	0.000
	Gen	618	60.63	32.18	1.294			

c. Non-Center Within Group Comparisons

A comparison of non-Center Students by enrollees vs. non-enrollees revealed the following: (see Table 58). Non-enrollees scored significantly higher on each of the following variables:

a. GPA (p = 0.000)
b. GPAR (p = 0.000)
c. ACH (p = 0.000)
d. APT (p = 0.000)
e. CURRIC (p = 0.000)
f. OCCUP (p = 0.000)

Enrollees scored significantly higher on the Maturity measure (p = 0.035). The Motivation score, while not significantly different at the .05 level (p = 0.110), was in the same direction.

In summary then, population differences were established both between total Center and non-Center samples on a variety of variables, and between several subgroupings of both samples.

TABLE 58

t-VALUES: NON-CENTER ENROLLEES VS NON-ENROLLEES

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	Enroll	160	58.58	19.55	1.545	-4.63	1579	0.000
	Not Enroll	1421	66.44	20.47	0.543			
GPAR	Enroll	159	75.50	16.40	1.301	-4.72	1578	0.000
	Not Enroll	1421	81.40	14.77	0.392			
ACH	Enroll	147	48.29	24.91	2.055	-4.19	1421	0.000
	Not Enroll	1276	57.75	26.06	0.729			
APT	Enroll	151	51.56	22.81	1.856	-4.74	1472	0.000
	Not Enroll	1323	61.43	24.39	0.670			
CURR	Enroll	158	1.47	0.50	0.040	-4.90	1557	0.000
	Not Enroll	1401	1.66	0.47	0.013			
MAT	Enroll	171	36.47	5.45	0.417	2.11	1810	0.035
	Not Enroll	1641	35.53	5.53	0.137			
MOT	Enroll	172	12.22	6.37	0.486	1.60	1815	0.110
	Not Enroll	1645	11.50	5.53	0.136			
OCC	Enroll	172	3.33	2.95	0.225	6.07	1815	0.000
	Not Enroll	1645	2.07	2.53	0.062			

5. Identification of High and Low Motivation Groups:

Those subjects who were identified as +1 SD or more above the total group Mean raw score on the Motivation test were designed as a "high motivation" group. Those subjects who were -1 SD or more below the Mean raw score on the motivation test were designated the "low motivation" group. These criteria were used to identify high and low motivation groups for both Center and non-Center students.

a. Comparison of high and low motivation groups for the Center and non-Center samples.

High and low motivation groups for the Center and non-Center samples were then compared on all performance profile variables as well as the Maturity test to determine if there were any differences between these groups. Within group comparisons were also made for Center high and low motivation students and for non-Center high and low motivation students. The following results were obtained: (see Tables 59 thru 60).

(NOTE: The Aptitude variable has not been included in this discussion since a substantial amount of data was missing for Center students).

For the comparison of Center and non-Center low motivation students, significant differences were found on the following variables: (see Table 59).

(1) non-Center students in the low group had a higher GPAR (p = 0.026)

(2) Center students in the low group had a higher ACH score (p = .041)

(3) More non-Center students in the low group were College Preparatory (p = .000)

(4) The Mean score on the Maturity test for Center low-Motivation students was not significantly higher (p = .130) than for non-Center low motivation student. This finding is in contrast to the significantly higher score on the maturity test found in the comparison of total Center and non-Center samples.

(5) Center low-motivation students chose significantly more occupations at the non-professional end of the occupational choice scale than did non-Center students (p = .000).

(6) There was no significant difference (p = .372) between low motivation Center and non-Center students on job vs. no job.

On the comparison of Center and non-Center students identified as "high-motivation", the following results were obtained: (see Table 60)

(1) non-Center students were found to have a significantly higher GPA (p = .002).

(2) non-Center students were also found to have a significantly higher GPAR (p = .000).

(3) Center and non-Center students were not significantly different on the ACH test score (p = .174). This finding was in contract to the significantly higher score obtained for Center students on total group comparisons.

(4) Significantly more non-Center students were found to be participating in College Preparatory programs than Center students (p = .001).

(5) Center and non-Center students were not significantly different on Maturity test scores (p = .085), although a trend toward this difference was certainly indicated. This finding was again in contrast to that found for a comparison of total Center and non-Center groups. (see Table 52)

(6) As with the comparison of "low-motivation" groups and total population groups, a significant difference was found between Center high motivation students and non-Center high motivation students on occupational choice, with more non-Center students selecting occupations as the professional end of the occupational choice scale (p = .000).

(7) There was no significant difference between Center and non-Center high-motivation students on job vs. no-job (p = .663), although the Mean score for Center students was lower, indicating a greater percentage of the sample had jobs.

TABLE 59

t-VALUES: CENTER LOW MOTIVATION GROUP VS NON-CENTER LOW MOTIVATION GROUP

VAR	Group	N	X	SD	SE	t	df	p
GPA	Non-C	221	57.12	19.84	1.335	1.07	301	0.287
	Center	82	54.40	19.24	2.124			
GPAR	Non-C	221	76.80	14.95	1.006	2.23	283	0.026
	Center	64	72.06	14.85	1.856			
ACH	Non-C	196	50.24	24.24	1.732	-2.05	249	0.041
	Center	55	57.47	18.43	2.485			
APT	Non-C	204	54.05	25.51	1.790	-1.48	214	0.140
	Center	12	65.08	15.10	4.360			
CURR	Non-C	216	1.59	0.49	0.034	4.62	295	0.000
	Center	81	1.30	0.46	0.051			
MOT	Non-C	255	30.48	5.66	0.354	-1.52	354	0.130
	Center	101	31.50	5.90	0.587			
OCCU	Non-C	257	2.26	2.77	0.173	-6.22	358	0.000
	Center	103	4.39	3.31	0.326			
JOB	Non-C	257	1.47	1.34	0.083	-0.89	357	0.372
	Center	102	1.63	1.73	0.172			

TABLE 60

t-VALUES: CENTER HIGH MOTIVATION VS NON-CENTER HIGH MOTIVATION

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	Non-C	109	71.80	19.87	1.903	3.19	184	0.002
	Center	77	62.92	16.95	1.931			
GPAR	Non-C	109	85.27	13.65	1.307	3.77	172	0.000
	Center	65	76.94	14.86	1.844			
ACH	Non-C	105	59.30	28.14	2.746	-1.37	165	0.174
	Center	62	64.65	16.23	2.061			
APT	Non-C	103	60.76	24.91	2.455	-0.14	120	0.889
	Center	19	61.58	14.18	3.254			
CURR	Non-C	107	1.73	0.45	0.043	3.53	182	0.001
	Center	77	1.48	0.50	0.057			
MAT	Non-C	127	39.29	3.93	0.349	-1.73	217	0.085
	Center	92	40.25	4.19	0.437			
OCCU	Non-C	127	2.17	2.30	0.204	-5.35	217	0.000
	Center	92	4.04	2.90	0.302			
JOB	Non-C	126	1.54	1.26	0.112	1.87	216	0.063
	Center	92	1.28	0.45	0.047			

b. Comparison of Center high motivation students with Center low motivation students.

Comparing the Center group identified as high motivation with the Center group identified as low motivation, the following results were obtained: (see Table 61)

(1) High motivation students had a significantly higher GPA than low motivation students (p = .004).

(2) Although high motivation students did not have a significantly higher GPAR (p = .065), a trend toward this pattern was certainly indicated.

(3) High motivation students had a significantly higher Mean score on achievement than did low motivation students (p = .027).

(4) Significantly more high motivation students were in the college preparatory group than low motivation students (p = .027).

(5) High motivation students scored significantly higher on the Maturity measure than did low motivation students (p = .000).

(6) There was no differences in direction of occupational choice between the Center high and low motivation groups (p = .442).

(7) Although more high motivation students had held jobs than low motivation students, this difference was not significant at the .05 level (p = .066).

TABLE 61

t-VALUES: CENTER HIGH MOTIVATION GROUP COMPARED WITH CENTER LOW INNOVIATION GROUP

VAR	Group	N	X	SD	SE	t	df	p
GPA	H	77	62.92	16.95	1.931	2.96	157	0.004
	L	82	54.40	19.24	2.124			
GPAR	H	65	76.94	14.86	1.844	1.86	127	0.065
	L	64	72.06	14.85	1.856			
ACH	H	62	64.65	16.23	2.061	2.24	115	0.027
	L	55	57.47	18.43	2.485			
APT	H	19	61.58	14.18	3.254	-0.65	29	0.518
	L	12	65.08	15.10	4.360			
CURR	H	77	1.48	0.50	0.057	2.41	156	0.017
	L	81	1.30	0.46	0.051			
MAT	H	92	40.25	4.19	0.437	11.76	191	0.000
	L	101	31.50	5.90	0.587			
OCC	H	92	4.04	2.90	0.302	-0.77	193	0.442
	L	103	4.39	3.31	0.326			
JOB	H	92	1.28	0.45	0.047	-1.85	192	0.066
	L	102	1.63	1.73	0.172			
PERF	H	83	73.23	28.21	11.220	2.41	172	0.014
	L	91	62.35	31.61	3.310			

(8) Center students in the high motivation group achieved a significantly higher class performance score than did those students identified as low motivation (p = .014).

c. Comparison of non-Center high motivation students with non-Center low motivation students.

On the comparison of high and low motivation non-Center students, the following results were obtained (see Table 62):

(1) High motivation non-Center students had significantly higher GPA's than did low motivation students (p = .000).

(2) High motivation students had significantly higher GPAR's than did low motivation students (p = .000).

(3) High motivation students scored significantly higher on achievement tests than did low motivation students (p = .004).

(4) High motivation students scored significantly higher on aptitude tests than did low motivation students (p = .029).

(5) For the non-Center sample, more high motivation students were in the college preparatory program than were low motivation students (p = .013).

(6) High motivation students scored significantly higher on the Maturity test than did low motivation students (p = .000).

TABLE 62

t-VALUES: NON-CENTER HIGH MOTIVATION GROUP COMPARED WITH NON-CENTER LOW MOTIVATION GROUP

VAR	Group	N	$\overline{X}$	SD	SE	t	df	p
GPA	H	109	71.80	19.87	1.903	6.32	328	0.000
	L	221	57.12	19.84	1.335			
GPAR	H	109	85.27	13.65	1.307	4.98	328	0.000
	L	221	76.80	14.95	1.006			
ACH	H	105	59.30	28.14	2.746	2.92	299	0.004
	L	196	50.24	24.24	1.732			
APT	H	103	60.76	24.91	2.455	2.19	305	0.029
	L	204	54.05	25.51	1.786			
CURR	H	107	1.73	0.45	0.043	2.49	321	0.013
	L	216	1.59	0.49	0.034			
MAT	H	127	39.29	3.93	0.349	15.75	380	0.000
	L	255	30.48	5.66	0.354			
OCC	H	127	2.17	2.77	0.173	-0.33	382	0.738
	L	257	2.26	2.77	0.173			
JOB	H	126	1.54	1.54	0.112	0.46	381	0.649
	L	257	1.47	1.47	0.083			

(7) There was no significant difference between the high and low motivation groups on type of occupational choice (p = .738). It should be pointed out that this variable remained constant for both Center and non-Center high and low motivation students. The main difference found was between the two total Center and non-Center samples; whether or not they were identified as high or low motivation. Thus Center students consistently chose occupations other than professional or highly skilled technical, while non-Center students consistently chose more occupations at the professional and highly skilled technical end of the occupational choice scale.

(8) There was also no significant difference between high and low motivation non-Center students on the job or no-job variable (p = .649).

For both the Center and non-Center high and low motivation populations, a profile on all key variables was produced in an attempt to describe the low and high motivation student in each of the samples. Tables 63 through 66 summarize these findings.

d. Summary profiles for Center low motivation students and Center high motivation students.

In analyzing these tables it was discovered that as a group (see Table 63) Center low motivation students tend to have an average GPA ($\overline{X}$ = 54.40), a GPA related of greater than average ($\overline{X}$ = 72.06) and score higher than average on a standard achievement test ($\overline{X}$ = 65.08). However the Mean GPA and GPAR are lower for this group than for the total Center population (see Table 43 GPA $\overline{X}$ = 57.85; GPAR $\overline{X}$ = 74.58). Inexplicably the ACH Mean score for the low motivation group is higher than for the total Center population (ACH $\overline{X}$ = 59.96). This may be related to the fact that achievement scores for Center students included those students who may have dropped out or who were infrequent attendees and who thus did not receive the motivation test.

The Mean curriculm score for Center low motivation students ($\overline{X}$ = 1.30) is about the same as for the total Center population ($\overline{X}$ = 1.33) although it is slightly more toward the General Education group.

The low motivation Center group achieved a Mean score on the Maturity Measure which was considerably lower than that achieved by the total Center group (low $\overline{X}$ = 31.50, Total $\overline{X}$ = 36.79).

On occupational choice the Center low motivation group had a Mean score which was at the non-professional end of the continuum ($\overline{X}$ = 6.11) and was much more so than the total Center group ($\overline{X}$ = 4.04).

Fewer Center low motivation students had held jobs in comparison to the total Center population (low $\overline{X}$ = 1.63; total Center $\overline{X}$ = 1.38, where 2.0 = no job). The Mean score for the Center low motivation students class performance was slightly lower than for the average Center student (low $\overline{X}$ = 62.35, Center $\overline{X}$ = 63.05).

The 92 Center students identified as high motivation need the following characteristics (see Table 64): An above average GPA ($\overline{X}$ = 62.92) and an above average GPAR ($\overline{X}$ = 76.94). Both of these were higher than that for the total Center population (Center GPA $\overline{X}$ = 57.85; Center GPAR $\overline{X}$=74.58). They also had an achievement test score which was higher than that obtained for the total Center population (High $\overline{X}$ = 61.58; Center $\overline{X}$ = 59.96). However their achievement test score Mean was *lower* than that of the low motivation group ($\overline{X}$ = 65.08). This may mean that the motivation measure is in fact a measure of *actual performance* rather than of ability or knowledge (which would also relate to the fact that the motivation test correlated very poorly with ability and achievement measures).

For curriculum (college preparatory or general education) the Center high motivation group was composed of more college preparatory students than was the total Center group (high $\overline{X}$ = 1.48; total Center $\overline{X}$ = 1.33), although not as many as for the total non-Center group ($\overline{X}$ = 1.61).

TABLE 63

SUMMARY DATA FOR CENTER LOW MOTIVATION GROUP

	$\overline{X}$	SD	SE	MIN	MAX	R	TOT FREQ.
GPA	54.40	19.24	2.12	20.00	91.00	71.00	82
GPAR	72.06	14.85	1.86	28.00	99.00	71.00	64
ACH	57.47	18.43	2.48	22.00	91.00	69.00	55
APT	65.08	15.10	4.36	40.00	90.00	50.00	12
CURR	1.30	0.46	0.05	1.00	2.00	1.00	81
MAT	31.50	5.90	0.59	14.00	47.00	33.00	101
MOT	2.30	4.13	0.41	-14.00	6.00	20.00	103
OCCU	6.11	2.15	0.25	1.00	8.00	7.00	74
JOB	1.63	1.73	0.17	1.00	9.00	8.00	102
P 1	37.39	26.05	3.48	1.00	100.00	99.00	56
P 2	45.90	30.53	3.46	3.00	100.00	97.00	78
PT	62.35	31.60	3.31	3.00	100.00	97.00	91

TABLE 64

SUMMARY DATA FOR CENTER HIGH MOTIVATION GROUP

	$\overline{X}$	SD	SE	MIN	MAX	R	TOT f
GPA	62.92	16.95	1.93	16.00	93.00	77.00	77
GPAR	76.94	14.86	1.84	23.00	98.00	75.00	65
APT	64.64	16.23	2.06	25.00	93.00	68.00	62
ACH	61.58	14.18	3.25	40.00	91.00	51.00	19
CURR	1.48	0.50	0.06	1.00	2.00	1.00	77
MAT	40.25	4.19	0.44	28.00	47.00	19.00	92
MOT	18.78	0.92	0.10	18.00	21.00	3.00	91
OCCU	4.89	2.45	0.28	1.00	8.00	7.00	76
JOB	1.28	0.45	0.05	1.00	2.00	1.00	92
P 1	50.51	30.26	4.41	3.00	100.00	97.00	47
P 2	52.17	32.97	3.91	2.00	100.00	98.00	71
PT	73.23	28.21	3.10	6.00	100.00	94.00	83

TABLE 65

SUMMARY DATA FOR NON-CENTER LOW MOTIVATION GROUP

	$\overline{X}$	SD	SE	MIN	MAX	R	TOT f
GPA	57.12	19.84	1.33	5.0	98.0	93.0	221
GPAR	76.80	14.95	1.01	10.0	98.0	88.0	221
ACH	50.24	24.24	1.73	2.0	98.0	96.0	196
APT	54.05	25.51	1.79	2.0	99.0	97.0	204
CURR	1.59	0.49	0.03	1.0	2.0	1.0	216
MAT	30.48	5.66	0.35	8.0	43.0	35.0	255
MOT	2.36	3.96	0.25	-15.0	6.0	21.0	257
OCCU	3.93	2.61	0.21	1.0	8.0	7.0	148
JOB	1.47	1.33	0.08	1.0	9.0	8.0	257

TABLE 66

SUMMARY DATA FOR NON-CENTER HIGH MOTIVATION GROUP

	X	SD	SE	MIN	MAX	R	TOT f
GPA	71.80	19.87	1.90	8.0	99.0	91.0	109
GPAR	85.27	13.65	1.31	8.0	99.0	91.0	109
ACH	59.30	28.14	2.75	2.0	99.0	97.0	105
APT	60.76	24.91	2.45	7.0	99.0	92.0	103
CURR	1.73	0.45	0.04	1.0	2.0	1.0	107
MAT	39.29	3.93	0.35	30.0	48.0	18.0	127
MOT	18.47	0.72	0.06	18.0	21.0	3.0	125
OCCU	2.99	2.19	0.22	1.0	8.0	7.0	92
JOB	1.54	1.26	0.11	1.0	9.0	8.0	126

High motivation Center students received an average score on the Maturity test which was greater than that received by the total Center group (high $\overline{X}$ = 40.25; total Center $\overline{X}$ = 36.79). In fact the Mean score on the Maturity test for this group was the highest achieved on any group of the population.

Occupational choice for the Center high motivation group was about the same as for the total Center population (high $\overline{X}$ = 4.89; total Center $\overline{X}$ = 4.04).

Total class performance for the high motivation group was substantially higher than for the total Center (high $\overline{X}$ = 73.23; total Center $\overline{X}$ = 63.05).

A greater portion of high motivation students had held jobs than the ratio for the total population (high $\overline{X}$ = 1.29; total Center $\overline{X}$ = 1.38.)

e. Summary profiles for non-Center high and low motivation students.

For the non-Center low motivation group of 257 students the following profile was obtained (see Table 65):

The Mean GPA ($\overline{X}$ = 57.12) was slightly above average, but was lower than that obtained for the total non-Center group (X = 62.25) (see Table 5). The Mean GPAR ($\overline{X}$ = 76.80) was again lower than that obtained for the total non-Center group ($\overline{X}$ = 79.36).

Aptitude and achievement Means were also lower for this group than for the total non-Center group (low Apt $\overline{X}$ = 50.24; total Apt $\overline{X}$ = 58.63; low ACH $\overline{X}$ = 54.05; Total ACH $\overline{X}$ = 55.30). However the Mean scores on achievement were very close for both groups, which again emphasizes the motivation measure as a performance rather than a knowledge measure.

The Mean score on the maturity measure for the non-Center low-motivation group was substantially lower than for the non-Center group as a whole (low $\overline{X}$ = 30.48; total $\overline{X}$ = 35.56).

The college preparatory vs. general education curriculum Mean for the low motivation group was just slightly more toward the general education end of the continuum (low $\overline{X}$ = 1.59; total $\overline{X}$ = 1.61). In general, however, the low motivation group can be said to be composed of essentially the same ratio of general education to college preparatory students as the total non-Center sample.

For occupational choice, low-motivation students tended to select jobs more at the non-professional end of the Continuum than did the total non-Center population (low $\overline{X}$ = 3.93; total $\overline{X}$ = 2.22). However a greater percent of low motivation students had held a job than in the total non-Center group (low $\overline{X}$ = 1.47; total $\overline{X}$ = 1.52). This is in contrast to the low motivation Center group.

125 students were identified as non-Center high motivation students. The following profile was obtained for this group:(see Table 66).

The Mean GPA for the high motivation non-Center group was 71.80, which represents the highest obtained by any sub-group in either population (total GPA $\overline{X}$ = 62.25; college prep $\overline{X}$ = 71.45). The Mean GPAR for this group was also extremely high ($\overline{X}$ = 85.27) and was a full 5+ percentage points higher than for the total non-Center group ($\overline{X}$ = 79.36). Mean Aptitude and Achievement scores were both higher for this group than for the total non-Center sample (high APT $\overline{X}$ = 59.30; Total APT $\overline{X}$ = 58.63; high ACH $\overline{X}$ = 60.76; Total ACH $\overline{X}$ = 55.30).

There were a greater percentage of college preparatory students in this group than in the total non-Center population (high $\overline{X}$ = 1.73; Total $\overline{X}$ = 1.61); however the occupational choice, although toward the professional end of the scale was slightly less than for the total non-Center group (high $\overline{X}$ = 2.99; total $\overline{X}$ = 2.22).

The average maturity test score for this group was higher than for the total non-Center sample (high $\overline{X}$ = 39.29; total $\overline{X}$ = 35.56).

About the same portion of high motivation non-Center students had held a job as for the total non-Center group (high $\overline{X}$ = 1.54; total $\overline{X}$ job = 1.52).

One additional comparison which should be noted is the difference in Mean score on the motivation test for Center and non-Center low motivation groups and for Center and non-Center high motivation groups.

To review the procedure by which these groups were selected, students classified as "low-motivation" received scores of 10 or greater below the Mean for the test ($\overline{X}$ total MOT test = 12.0; SD = 6.0) and students classified as "high-motivation" received scores of 10 or greater above the Mean of the test. Thus the low motivation group was comprised of students with scores of +6 or lower; the high motivation group was comprised of students with a score of +18 or higher.

The Mean score for the Center low motivation group (N = 103) was 2.30 and the range of obtained scores was from - 14.0 to + 6.0. The Mean score for the non-Center low motivation group (N = 125) was 2.36 and the range was from -15.0 to + 6.0. Two tentative conclusions can be drawn from this data: (1) the categorization of a "low-motivation" group utilizing the specified criteria is fairly stable, since the $\overline{X}$ for both groups is similar and (2) there is a greater ratio of low-motivation students in the Center total population than in the non-Center total population.

The Mean score for the Center high motivation group (N = 92) was 18.78 and the range of obtained scores was +18 - +21. The Mean score for the non-Center high motivation group

(N = 127) was 18.47 and the range of obtained scores was from + 18 to +21.

Based on these findings the following tentative conclusions can be made: (1) the categorization of a "high-motivation" group utilizing the specified criteria is a fairly stable one and (2) the ratio of high motivation students for the Center and non-Center groups tend to be comparable ($\frac{127}{1793}$ vs. $\frac{92}{936}$) although the ratio for the Center may be slightly higher.

6. Effects of the Career Opportunity Programs

The problem with analyzing the effects of the Career Opportunity Programs centered around the lack of data. The non-Center sample that was utilized by this project consisted entirely of member high school Juniors. Each member high school was asked to provide feedback on all students viewing the Career Opportunity Programs, regardless of whether or not they were Juniors. It was reasoned by project staff that feedback on Juniors could be weeded out from the rest of the data by the staff, rather than asking each high school counselor to make that discrimination. Three problems occurred. The major problem was that some high schools did not use the programs and thus were unable to provide feedback regarding viewing patterns. The second problem was that some high schools, although they used the programs, tacitly refused to complete the forms which were provided by the project, their excuse being that they "showed it to large groups rather than individual students". The third problem directly involved the lack of data on Juniors. Of the several hundred forms received from various high schools, only 118 were identified as Juniors.

Thus, the amount of data related to the effects of the Career Opportunity Programs on subsequent enrollment, appropriate course selection and recruitment of low motivation students was insufficient to draw any absolute conclusions. However, an analysis of the data which was obtained indicated a definite positive interraction between viewing the programs and course selection at the Center. In fact 74% of the Juniors who viewed a program and subsequently enrolled at the Center, indicated one of the programs viewed as their first or second choice at the Center. 50% of the Juniors for whom data was available and who viewed a program actually enrolled at the Center, although this figure probably increased after the termination of data collection. (NOTE: Data on enrollment was collected for only 700 students, the number who had actually enrolled prior to the June 30th data collection cut-off date.)

It is recommenced that evaluation procedures on the effects of these programs be continued, since in addition to the indication of their positive effects on course selection, informal feedback from many member high school liaison counselors support evidence of their strong positive influence on students plus the programs.

PART III: PROJECT FINDINGS

SECTION B: RELATIONSHIP OF PROJECT FINDINGS TO PROJECT OBJECTIVES

Project Objective number 1 is stated as follows: To identify those factors in the guidance process which have resulted in the extremely high success rate of students at the Center (where success rate is defined as successful course completion and job placement after training).

Data collected to meet this objective included the following: (1) Performance profile data for Center samples; (2) Attitude profile data for Center; (3) Center student class performance data.

As was stated in the proposal, the procedure which has been employed by the Center Guidance staff to assign students to particular instructional programs is to collect Performance Profile data for each applicant to the Center and to compare the resultant profile with the entry level skills for each class specified in the Dictionary of Occupational Titles (see Appendix M).

Project staff attempted to assess the affectiveness of this procedure by duplicating it. First Performance Profile data was collected on each student enrolled at the Center, and then this Performance Profile data was compared with actual class performance for each Center student.

As indicated in Part III, section A-2, correlations between Performance Profile variables and class performance for the total Center sample were low, even though they were significant at the .05 level or better.

Attitude Profile data (Maturity test score and Motivation test score) correlated even less well with class performance for the total Center sample.

In an attempt to identify the cause for these low correlations in a seemingly reliable procedure, additional correlations were obtained for each of the instructional programs at the Center with all Performance and Attitude Profile variables. The results became the key for data related to Project Objective #2, which is as follows: To isolate those factors leading to student success which may be directly attributed to the Guidance Program as separate from the Instructional Program.

Extreme variations between instructional programs on correlations of class performance with Attitude and Performance Profile variables were identified as the cause for the low total group correlations between these variables. An analysis of individual class correlations revealed that much of the range of student performance could be related to specific instructional programs. In other words, a profile of the successful student at the Center differed markedly by class. However, it was possible to identify certain patterns among the correlations which could be related to difference in instructional styles between the programs. (See Part II, Section A-2)

Project Objective #3 states: To actively seek to increase the enrollment of "low-motivation" students to acquire data on the effects of the Guidance Program with this population. Data related to this project objective includes the following: Performance Profile comparisons between Center and non-Center samples; Attitude profile data and comparisons for both Center and non-Center samples; identification of high and low motivation groups among Center and non-Center samples; Career Opportunity Programs viewed by non-Center sample; 72-73 enrollment; factor analysis of Attitude Profile tests.

The first step in analyzing data related to this project objective was to establish the equality or inequality of the Center sample as compared with the total non-Center sample. A variety of t tests were performed both between the total Center and non-Center groups and between sub-groupings of the two samples.

(See Part III, Section A-4). Based on these findings it was established that there were many differences between the two populations, both on performance and attitude variables.

The next step was to perform a factor analysis on the Attitude Profile measures in an attempt to identify "high" and "low" populations. Five relatively stable factors were identified for the Motivation test and three factors were identified for the Maturity test (see Part III, Section A-3). However, when an attempt was made to utilize the factors identified for the Motivation Test both to identify high and low motivation groups and to correlate and compare high and low motivation groups with other variables, it was discovered that these factors yielded no additional data of interest. The use of factor scores was then abandoned in favor of raw scores.

This then was the third step in analyzing data in relation to objective #3. Students for both Center and non-Center samples who had obtained raw scores +1 or -1 Standard Deviation from the total group Motivation Test Mean ($\overline{X}$ = 12.0, SD = 6) were identified and labeled "high" and "low" motivation groups respectively (see Part III, Section A-5). Several analyses were then performed on these groups, including comparisons between high and low motivation students both within samples and between samples. Based on these findings, it was established that it was in fact possible to identify two different groups based on motivation scores, groups that differed significantly on all Performance Profile variables, the Maturity Measure, and Class Performance.

The next step was to identify and compare high and low motivation 1972-73 school year enrollees and non-enrollees from the non-Center group. Based on incomplete data (see Part IV, Evaluation and Discussion), it was established that 72-73 low motivation enrollees were proportionately fewer, but were substantially lower in all measures than were 71-72 Center low motivation students.

Data on career opportunity viewing for 72-73 Center enrollees was inconslusive (see Part III, Section A-6) due to lack of data, but indicated a strong influence on course selection if not on enrollment of low motivation students.

Project Objective #4, which was designed to synthesize the findings of project objectives #1 - #3 is defined in the following way: Based on project findings, to develop a guidance model for vocational education which will predict trainee performance in a given instructional program.

Figure 9 illustrates the model proposed in this project. Basically it is similar to Guidance procedures already in effect at the Center. However, it adds Attitude Profile variables to the total pattern, and takes into account variations in instructional programs by matching applicant profiles not only with D.O.T. prerequisite skills, but also with skills related to the mode of instruction (traditional or individualized) offered in the various programs. Thus a student may be interested in and have the prerequisite abilities for two programs, say Program A and Program B at the Center. However program A happens to be presented in the "traditional" mode while Program B is in the "individualized" mode. Based on an analysis of the student's Performance and Attitude profiles as compared with students who have been successful in the past in each of these programs, it is determined that the students will probably be more successful in Program B because of the instructional mode. Such a procedure can also be utilized to implement changes in instructional modes, if it can be demonstrated that students respond better in one type of learning environment than another, regardless of the content area.

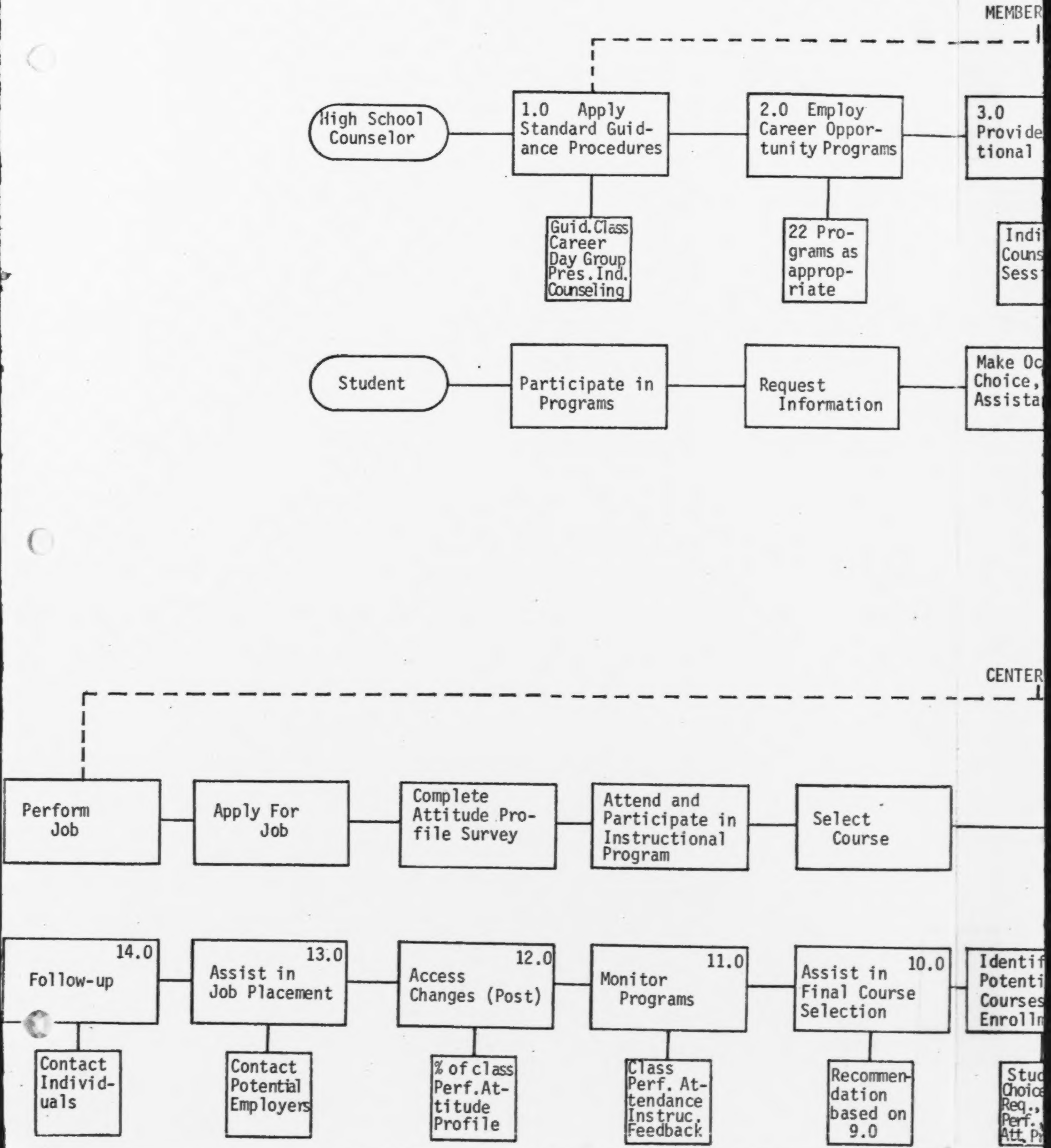
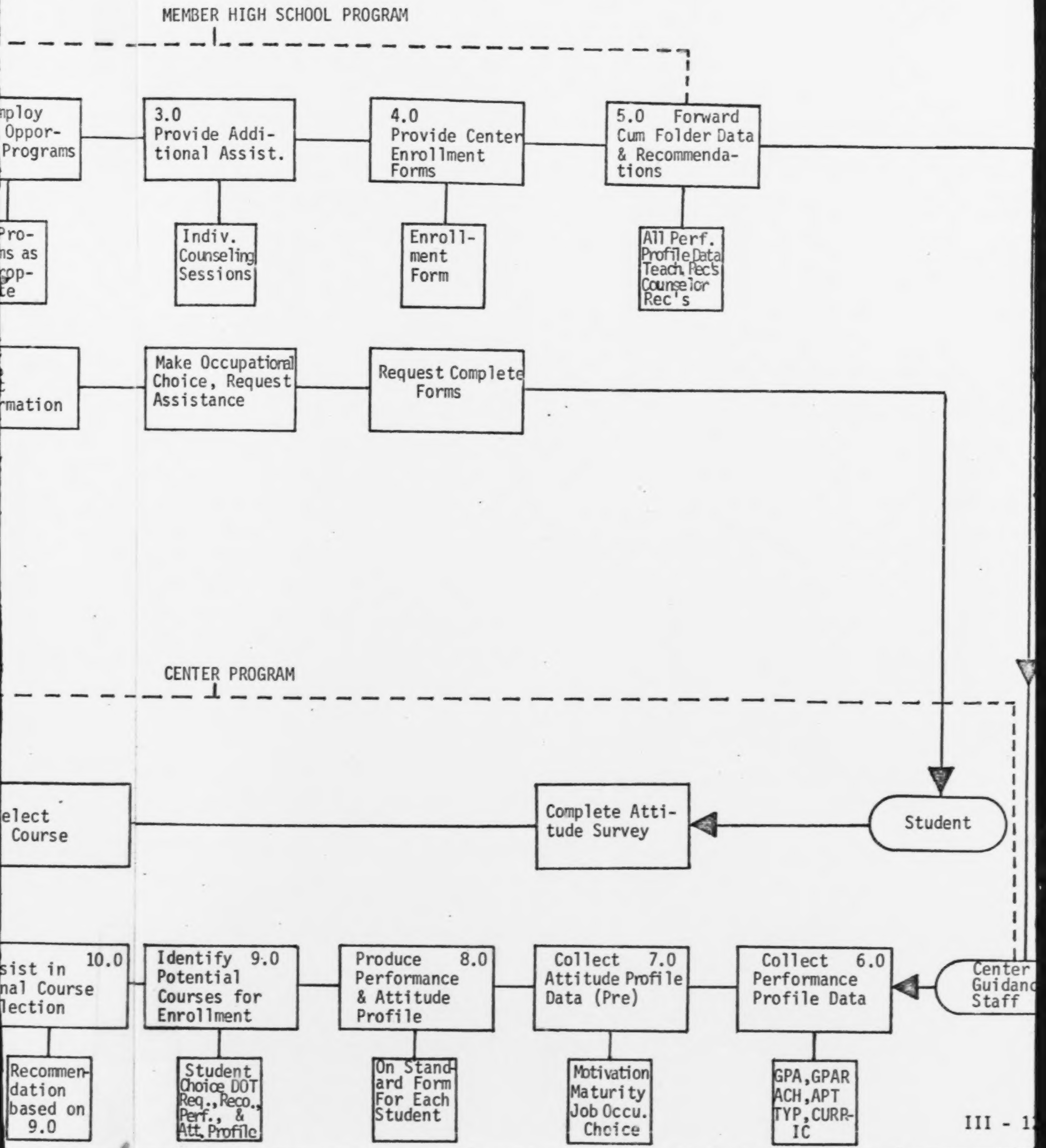

MEMBER
High School Counselor
1.0 Apply Standard Guidance Procedures
Guid. Class Career Day Group Pres. Ind. Counseling
2.0 Employ Career Opportunity Programs
22 Programs as appropriate
3.0 Provide
tional
Indi
Couns
Sess
Student
Participate in Programs
Request Information
Make Oc
Choice,
Assista
CENTER
Perform Job
Apply For Job
Complete Attitude Profile Survey
Attend and Participate in Instructional Program
Select Course
14.0
Follow-up
Contact Individuals
13.0
Assist in Job Placement
Contact Potential Employers
12.0
Access Changes (Post)
% of class Perf. Attitude Profile
11.0
Monitor Programs
Class Perf. Attendance Instruc. Feedback
10.0
Assist in Final Course Selection
Recommendation based on 9.0
Identif
Potenti
Courses
Enrollm
Stud
Choice
Req.,
Perf.
Att. Pr

FIGURE 9 PROPOSED GUIDANCE MODEL


MEMBER HIGH SCHOOL PROGRAM
nploy
Oppor-
Programs
3.0
Provide Additional Assist.
4.0
Provide Center Enrollment Forms
5.0 Forward Cum Folder Data & Recommendations
Pro-
ns as
ropp-
te
Indiv. Counseling Sessions
Enroll-ment Form
All Perf. Profile Data Teach. Rec's Counselor Rec's
rmation
Make Occupational Choice, Request Assistance
Request Complete Forms
CENTER PROGRAM
Student
elect
Course
Complete Attitude Survey
sist in
nal Course
lection
10.0
Identify 9.0
Potential Courses for Enrollment
Produce 8.0
Performance & Attitude Profile
Collect 7.0
Attitude Profile Data (Pre)
Collect 6.0
Performance Profile Data
Center
Guidanc
Staff
Recommendation based on 9.0
Student Choice DOT Req., Reco., Perf., & Att. Profile
On Standard Form For Each Student
Motivation Maturity Job Occu. Choice
GPA, GPAR ACH, APT TYP, CURR-IC

Project Objective #5 is stated as follows: To further refine this guidance model so that changes in performance and attitudes after completion of any given instructional program may be predicted. This prediction of change to be derived from the performance and attitude profiles acquired at the time of initial enrollment. There is presently no data to discuss in relation to this project objective, both since this objective is designed primarily as a follow-up objective and because delays in initial testing of the 71-72 Center sample prohibited administering a "post-test" to that group (see Part IV, Evaluation and Discussion).

PART IV

EVALUATION AND DISCUSSION

PART IV: EVALUATION AND DISCUSSION

As specified in the project proposal, the evaluation of the project was to be based on the ability of the project staff to meet stated project objectives. The following is an evaluation of project findings related to project objectives, an assessment of success or failure in meeting each of the objectives, an indication of reasons for shortcomings where they occurred and finally,recommendations for further research in areas pinpointed by project findings.

As stated in the proposal, project objective #1 "will be evaluated on the basis of the identification of specific factors which contribute to the success of the guidance program. These factors are to be utilized in the guidance model."

Based on an assessment of standard Center guidance procedures, the primary factor identified to account for the success of the guidance program was the use of Performance Profile data in the assignment of Center applicants to instructional programs. However, it was discovered that for the total Center group, the use of the Performance Profile alone could not of itself account for an individual student's success or failure at the Center, using class performance as the criterion of success.

A primary factor in the failure of Performance Profile data alone to account for performance in a particular instructional program lies with the method by which class performance was measured. Class performance was measured in terms of total percentage of instructional objectives met by each student for a given program. This means of measurement failed to take into account the fact that many students who are placed in a particular class are not expected to complete total requirements of instructional programs. Rather it is possible that they will "spin-off" with basic entry level skills only, since their performance profiles indicate that they do not have the prerequisites to achieve some of the higher level skills encompassed by the program. The reason "Certificates of Proficiency" or "grades" were initially rejected by the project as adequate measures of class performance was related to this philosophy. It is standard center procedure to ensure that most students receive a "Certificate of Proficiency" even if this certificate is in the "helper" category, which is relatively simple to master. Grades were viewed as inadequate because most students at the Center readily achieve an "A" or a "B" rating, where grading is based not on "how much" an individual achieves, but rather on "how well" they achieve whatever they do.

Another problem related to the failure of Performance Profile data as predictive of class performance is related to the translation of this data into percentile scores based on the chart included in Appendix D. Because of the skewed frequency distribution based on a sample of over 9,000 non-Center students, the conclusion which has been drawn by project staff is that a blanket translation of all scores into percentile rankings without taking into account differences in tests administered results in a failure of the resultant scores to discriminate at either the lower or upper ends of the performance continuum.

However, in spite of these shortcomings, it is felt that data related to project objective #1 definitely provides an indication that the Performance Profile is a single key predictor of performance in vocational education programs. If class performance is redefined to include the three factors of percentage of class performance, certificates of proficiency, and grades, it is felt that the ability of this measure to predict success will be extremely high.

Stated evaluation of project objective #2 is as follows: This objective...."will be met when variables specific to the guidance program can be identified which are separate from the Center instructional program." To completely separate guidance from instruction is of course an impossibility. However, based on data on individual class correlations at the Center, it has been established that strikingly different performance patterns are produced by the different instructional programs. Thus class performance in one program is highly positively correlated with GPA, while in another class, class performance is negatively correlated with this variable. It has been proposed that this variance in performance between classes is related to the type of instruction offered, rather than to factors inherent in the guidance program. "Traditional" and "individualized" instructional programs have been identified (based on observational data provided by the guidance staff), and patterns of student performance related to these differing modes of instruction have been identified. It has been suggested that a student may have a performance profile suitable for more than one instructional program at the Center, but that based on a knowledge of the variables involved in instruction, a decision can be made to place a student in one or the other of the instructional environments where he has a greater probability of success. Thus a student with a low GPA, but with all of the other necessary skills for success in two given courses, would definitely be more successful in the program where GPA has been negatively correlated with class performance.

As specified in the proposal, project objective #3 "will be met when students identified as low motivation enter or apply to the Center as a result of the recruitment procedures and are given the performance and attitude profiles."

The components of findings related to this objective are as follows: Differences between the Center sample and non-Center sample were established on all key variables. It was possible, utilizing the raw scores of the motivation test, to identify both a Center and non-Center high and low motivation group which was stable across performance variables, although differences between the Center and non-Center high and low motivation groups were similar to those found for total sample comparisons. It was not possible to demonstrate that recruitment procedures increased the number of low motivation students coming to the Center in 72-73. This was because responses to requests for data from Center member high schools was insufficient to either support or reject the influence of the Career Opportunity programs in the recruitment of low motivation students. However, it was possible to conclude that 74% of the students who viewed Career Opportunity programs, selected one of the programs viewed for their first or second choice at the Center, and that low motivation students who applied for 72-73 enrollment, although proportionately fewer than in 71-72, were also considerably lower on all Performance Profile and Attitude Profile measure than the 71-72 low motivation group. Thus data for project objective #3 are inconclusive at this time, however there is a definite indication that under tighter controls of data collection that this objective would have been successful as stated.

Project objective #4 "will be evaluated on the basis of the development of the guidance model. Although initial data about the ability of the model to predict trainee performance will be available in the final project report, validation procedures will continue after the termination of the project. An acceptable level of prediction will be at the 90% level." There is no evidence at this point to substantiate a statement of prediction for the guidance model as presented in Part III, section B. However it is felt that by taking into account differences in the instructional programs and utilizing real scores for Performance Profile data, as well as including Attitude Profile variables in the prediction model, that this model will in fact predict individual student performance in a particular class. However data to support this contention is not available at the time of this report.

Project objective #5, which "will be evaluated on the basis of its ability to predict the quantity and direction of change among students at the Center after completing an instructional program, "is one step beyond project objective #4, and as such is beyond the scope of this project. Delays in data collection, inability to collect much data which was originally identified as essential to meeting project objectives and loss of key Guidance personnel at the Center have all contributed to the failure to meet this objective. The minimum estimate of time required to meet this objective is felt by project staff to be a two-year follow-up during, which the guidance model is continually refined and upgraded.

In conclusion then, it may be said that in relation to stated project objectives, this project was partially successful. However, as a result of this project a tremendous amount of data was generated, both for Center students and for non-Center students from which the Center population is acquired. Differences between Center and non-Center students, previously "felt" to exist, have in fact been demonstrated to exist. Differences in student performance between instructional programs at the center have been identified, and these data are now available to form the basis of either a more comprehensive guidance program, or revision of modes of instruction at the Center. High and low motivation groups of students for both the Center and non-Center samples have been successfully identified, and relatively stable differences between the high and low motivation student have been identified. Findings related to the use of the Career Opportunity Programs, although insufficient in terms of recruitment of low motivation students, have indicated that these programs do influence student course choice at the Center. Finally, a guidance model has been produced which incorporates project findings, and which has the potential for becoming an instrument which is predictive of student success in a variety of vocational instructional settings.

PART V

SUMMARY OF PROJECT ACTIVITIES AND PROJECT FINDINGS

PART V: SUMMARY OF PROJECT ACTIVITIES AND PROJECT FINDINGS

SECTION A. SUMMARY OF PROJECT ACTIVITIES

During the initial phase of the project, personnel were identified to fill all vacant project positions. These included the project secretary, two field workers and an educational psychologist.

A project schedule was then established to January 31, 1972. Operational definitions of key concepts utilized in the project were produced. Types of data to be collected were identified.

Field workers received in-service training in data collection procedures for the performance profile. Letters of introduction were produced for each field worker and the project secretary. Principals of each high school to be contacted were notified of the pending data collection activities. Data collection at the member high schools began in September of 1971 and was completed prior to Christmas vacation 1971.

The Career Opportunity Programs were disseminated to Center member high schools. Data collection procedures were formalized and counselors at each high school scheduled to receive the programs were informed of the data collection requirements. Data collection forms were produced and disseminated for this purpose.

A review of the literature for the various project measures was made in an attempt to identify an appropriate instrument for each of the components of the survey (i.e.,self-esteem, attitude toward school, achievement motivation and vocational maturity). Where it was possible to identify usable instruments, authorization was obtained to utilize each instrument as a part of the project survey. Since members of the project staff were unable to identify an adequate instrument to measure achievement motivation, the staff produced an instrument specifically for project use.

The total survey, consisting of four sub-sections was typed, reproduced and administered to 200 students attending a high school outside the area served by the Center.

Results of the trial survey were analyzed, and the survey was shortened and revised. It was then submitted to Center Administrators for approval. Some problems were encountered with the result that the survey was again revised and shortened. Two sub-tests were deleted entirely. The revised survey was administered to a small sample of Center students to establish the test taking time required. This information, plus the revised and shortened test were resubmitted for approval, which was obtained in December, 1971.

Since there was much resistance to the concept of administering the survey to Juniors in all high schools served by the Center, a representative sample of high schools at which to administer the survey was decided upon. Seven high schools in four districts were initially identified. Administrators were contacted at each of these schools. Survey administration was actually completed at four high schools.

The survey was administered to all Center students attending all three academic sessions. Class performance data to the semester and to the end of the year was also collected on each Center student.

A computer programmer was identified and meetings were held to select the statistical programs to perform the data analysis. A keypunch format was developed. All data collected were scored (if necessary), coded, and transferred to keypunch sheets for later keypunching.

All coded data was punched and verified for transfer to magnetic tape for processing.

Initial statistical analysis (on performance profiles and completed surveys for Center and Member high school students was completed).

Data collection on Career Opportunity programs continued to May 30, 1972. Data collection for new 72-73 Center enrollees began May 1, 1972, although completion of this activity was not possible until after June 30.

Trainee performance data to the end of the year was recorded. Card "3" was coded and keypunched. (New enrollees, Center student performance and Career Opportunity viewing)

A multivariate analysis of all project data was produced. Population differences and similarities were identified. High and low motivation groups were identified and compared and profiles of their attributes were compiled.

SECTION B. SUMMARY OF PROJECT FINDINGS

1. Population Descriptors (see Part III, Section A-1)

	CENTER SAMPLE	NON-CENTER SAMPLE
TOTAL N	1321	9121
$\overline{X}$ Age	17.06	16.24
$\overline{X}$ GPA	57.85	62.25
$\overline{X}$ GPAR	74.58	79.36
$\overline{X}$ ACH	59.96	55.30
$\overline{X}$ APT	64.23	58.63
$\overline{X}$ MOT	12.80	11.83
$\overline{X}$ MAT	36.79	35.36
$\overline{X}$ OCCUP	4.04	2.22

2. Correlations (see Part III, Section A-2)

	CENTER SAMPLE r	NON-CENTER SAMPLE r
GPA/GPAR	.724	.834
GPA/ACH	.963	.585
GPA/APT	.666	.557
GPA/MOT	.091	.185
GPA/MAT	.160	.169
GPA/% Perf.	.168	-
GPAR/ACH	.711	.487
GPAR/APT	.653	.469
GPAR/MOT	.017	.146
GPAR/MAT	.137	.150
GPAR/% Perf.	.130	-
ACH/APT	.709	.810
ACH/MOT	.057	.124
ACH/MAT	.119	.098
ACH/% Perf.	.139	-
APT/MOT	-.033	.124
APT/MAT	-.115	.088
APT/% Perf.	.129	-
MOT/MAT	.428	.454
MOT/% Perf.	.070	-
MAT/% Perf.	.103	-

3. Factor Analysis: (see Part III, Section A - 3 for data related to these findings. No significant findings were obtained from these analyses.)

4. Population Comparisons (see Part III, Section A-4)

a.	$\overline{X}$ TOTAL CENTER	$\overline{X}$ TOTAL NON-CENTER	P
GPA	57.94	62.02	.000
GPAR	74.70	79.40	.000
ACH	60.03	55.22	.001
APT	63.18	58.31	.011
CURR	1.33	1.60	.000
MAT	36.79	35.56	.000
MOT	12.63	11.57	.000

b.	$\overline{X}$ Center Coll. Prep.	$\overline{X}$ Non-Center Coll. Prep.	P
GPA	69.68	71.45	.093
GPAR	82.65	86.04	.000
ACH	70.80	66.45	.002
APT	70.55	69.15	.498
MAT	38.64	35.94	.000
MOT	13.57	11.87	.000
OCCU	3.84	1.81	.000
JOB	1.29	1.51	.002

c.	$\overline{X}$ Center Gen. Ed.	$\overline{X}$ Non-Center Gen. Ed.	P
GPA	52.25	47.66	.000
GPAR	70.65	69.36	.118
ACH	54.35	36.26	.000
APT	51.22	40.16	.000
MAT	36.30	34.94	.000
MOT	12.31	11.12	.000
OCCU	4.30	2.77	.000
JOB	1.36	1.54	.23

d.	$\overline{X}$ Center Gen. Ed.	$\overline{X}$ Center Coll. Prep.	P
GPA	52.26	69.64	.000
GPAR	70.68	82.61	.000
ACH	54.42	70.77	.000
APT	51.70	70.33	.000
MAT	36.30	38.64	.000
MOT	12.31	13.57	.007
OCCU	4.30	3.84	.034
JOB	1.36	1.29	.338
PERF.	60.63	72.60	.000

e.	$\overline{X}$ Center Job	$\overline{X}$ Center No Job	P
GPA	58.27	63.17	.002
GPAR	75.14	76.68	.272
ACH	60.00	65.97	.001
APT	62.38	65.10	.376
MAT	37.21	35.74	.000
MOT	12.70	12.38	.469
OCCU	4.03	4.05	.928
PERF.	66.15	70.56	.205

f.	$\overline{X}$ Non-Center Job	$\overline{X}$ Non-Center No Job	P
GPA	63.96	68.10	.000
GPAR	80.01	81.74	.030
ACH	55.28	58.91	.012
APT	59.34	61.86	.058
CURR	1.62	1.67	.073
MAT	35.66	35.46	.457
MOT	11.27	12.04	.004
OCCU	2.35	1.98	.004

g.	$\overline{X}$ Non-Center Enrollees	$\overline{X}$ Non-Center Non Enroll	P
GPA	58.58	64.44	.000
GPAR	75.50	81.40	.000
ACH	48.29	57.75	.000
APT	51.56	61.43	.000
CURR	1.47	1.66	.000
MAT	36.47	35.53	.035
MOT	12.22	11.50	.110
OCCU	3.33	2.07	.000

5. Identification of High and Low Motivation Groups

a.	$\overline{X}$ Non-Center Low	$\overline{X}$ Center Low	P
GPA	57.12	54.40	.287
GPAR	76.80	72.06	.026
ACH	50.24	57.47	.041
APT	54.05	65.08	.140
CURR	1.59	1.30	.000
MAT	30.48	31.50	.130
OCCU	2.26	4.39	.000
JOB	1.47	1.63	.372

b.	$\overline{X}$ Non-Center High	$\overline{X}$ Center High	P
GPA	71.80	62.92	.002
GPAR	85.27	76.94	.000
ACH	59.30	64.65	.174
APT	60.76	61.58	.889
CURR	1.73	1.48	.001
MAT	39.29	40.25	.085
OCCU	2.17	4.04	.000
JOB	1.54	1.28	.063

c.	$\overline{X}$ Center High MOT	$\overline{X}$ Center Low MOT	P
GPA	62.92	54.40	.004
GPAR	76.94	72.06	.065
ACH	64.65	57.47	.027
APT	61.58	65.08	.518
CURR	1.48	1.30	.017
MAT	40.25	31.50	.000
OCCU	4.04	4.39	.442
JOB	1.28	1.63	.066
PERF	73.23	62.35	.014

d.	$\overline{X}$ Non-Center High MOT	$\overline{X}$ Non-Center Low MOT	P
GPA	71.80	57.12	.000
GPAR	85.27	76.80	.000
ACH	59.30	50.24	.004
APT	60.76	54.05	.029
CURR	1.73	1.59	.013
MAT	39.29	30.48	.000
OCCU	2.17	2.26	.738
JOB	1.54	1.47	.649

e. Summary of Center Means, High MOT, Low MOT and Total Sample

VAR	$\bar{X}$ High	$\bar{X}$ Low	$\bar{X}$ TOT
GPA	62.92	54.40	57.85
GPAR	76.94	72.06	74.58
ACH	61.58	57.47	59.96
APT	64.64	65.08	64.23
MOT	48.78	2.30	12.80
MAT	40.25	31.50	36.79
OCCU	4.89	6.11	4.04
JOB	1.28	1.63	1.38
PERF	73.23	62.35	63.51

f. Summary of Non-Center Means, High MOT, Low MOT and Total

VAR	$\bar{X}$ High	$\bar{X}$ Low	$\bar{X}$ TOT
GPA	71.80	57.12	62.25
GPAR	85.27	76.80	79.36
ACH	59.30	50.24	55.30
APT	60.76	54.05	58.63
MAT	39.29	30.48	35.56
MOT	18.47	2.36	11.83
OCCU	2.99	3.93	2.22
JOB	1.54	1.47	1.52

SECTION A

ORIGINAL BUDGET

STATE OF CALIFORNIA Vocational Education	REGION	CODE	COUNTY Los Angeles	CODE	VE-2.1C (7-70)
	DISTRICT			CODE	

PROPOSED EXPENDITURES -- BUDGET SUMMARY -- PART C, Section 131(b) of the Vocational Education Amendments of 1968

Vocational Education Research

Fiscal Year Ending June 30, 1971

Round to the closest dollar. Do not report cents.

VOCATIONAL EDUCATION PROGRAM

Classes of Expenditures		Agriculture 01.	Distribution 04.	Health 07.	Home Economics (Gainful) 09.02	Office 14.	Technical 16.	Trade and Industry 17.	Other 00.	Total
ADMIN. of Vocational Education										
112 Directors' Salary	1								23,919	23,919
120 Classified Salaries	2								16,362	16,362
192 Other Exp. of Director	3								1,550	1,550
INSTRUCTION										
212 Supervisors' Salaries	5								3,684	3,684
213 Teachers' Salaries	6								1,540	1,540
214 Other Certificated Salaries	7								1,750	1,750
220 Classified Salaries	8								4,103	4,103
230 Textbooks	9									
290 Other Exp. of Instruction	10									
var. Contracted Instruction	11									
Miscellaneous Expenses	12									
PROPOSED DIRECT EXPENDITURES	13									
Indirect Expenditures	14									
PROPOSED CURRENT EXPENDITURES	15									
CAPITAL OUTLAY										
1269 Voc. Educ. Equipment	17									
var. Construction and Other Capital Outlay	18									
TOTAL PROPOSED PROGRAM EXPEND.	19								52,908	52,908
Less Income	20								7,908	7,908
EXCESS EXPENDITURES ABOVE INCOME	21								45,000	45,000

SECTION A: ORIGINAL BUDGET

STATE OF CALIFORNIA Vocational Education	REGION	CODE	COUNTY Los Angeles	CODE	VE-3.1C (7-70)
	DISTRICT			CODE	

PROPOSED EXPENDITURES -- BUDGET SUMMARY -- PART C, Section 131(b) of the Vocational Education Amendments of 1968

Research Priorities

Fiscal Year Ending June 30, 1971

Supplementary Schedule of Code 00 -- "OTHER"

Round to the closest dollar. Do not report cents.

Classes of Expenditures		Guidance and Counseling 1C 90.01	Cost/Benefit and Cost/Effectiveness Evaluation 2C 90.021	Evaluation Disadvantaged and Handicapped 3C 90.027	Follow-up and Management Information 4C 90.041	Occupational Needs and Opportunities 5C 90.042	New Careers Task Analysis 6C 90.043	Handicapped and Disadvantaged Programs 7C 90.07	Basic Process for Cluster Training 8C 90.08	Total (Other) 00.
ADMIN. of Vocational Education										
112 Directors' Salary	1	23,919								23,919
120 Classified Salaries	2	16,362								16,362
192 Other Exp. of Director	3	1,550								1,550
INSTRUCTION										
212 Supervisors' Salaries	5	3,684								3,684
213 Teachers' Salaries	6	1,540								1,540
214 Other Certificated Salaries	7	1,750								1,750
220 Classified Salaries	8	4,103								4,103
230 Textbooks	9									
290 Other Exp. of Instruction	10									
var. Contracted Instruction	11									
Miscellaneous Expenses	12									
PROPOSED DIRECT EXPENDITURES	13									
Indirect Expenditures	14									
PROPOSED CURRENT EXPENDITURES	15									
CAPITAL OUTLAY										
1269 Voc. Educ. Equipment	17									
var. Construction and Other Capital Outlay	18									
TOTAL PROPOSED PROGRAM EXPEND.	19	52,908								52,908
Less Income	20	7,908								7,908
EXCESS EXPENDITURES ABOVE INCOME	21	45,000								45,000

SECTION A: ORIGINAL BUDGET

SECTION A: ORIGINAL BUDGET

STATE OF CALIFORNIA Vocational Education	REGION	CODE	COUNTY Los Angeles	CODE
	DISTRICT			CODE

Schedule
A.1
(7-70)

Schedule A.1
ANALYTICAL STATEMENT OF PROPOSED PROGRAM EXPENDITURES ON FORMS VE-2.1C and VE-3.1C

______________________ Program

Page 1 of 1 pages

Account Number	Computation	Expenditures Reported on VE-2.1C & 3.1C
112	Project Director - $1800 mo., 50% on project = 6 mo. @ $1800	10,800
	Senior MultiMedia Specialist, $1367 mo., 50% on project = 6 mo. @ $1367	8,202
	Behavioral Scientist, 60 days @ $68.00 per day	4,080
	Employee benefits	837
120	Consultant - Educational Psychologist, 45 days @ $100.00 per day	4,500
	Consultant - Field Worker, 88 days @ $45.00 per day	3,960
	Clerk Typist, $596.00 mo., full time on project, 12 mo. @ $596	7,152
	Employee benefits	750
192	Project report duplication and dissemination	800
	Office supplies, materials, etc.	750
212	Director of Occupational Training, 3 mo., 33 1/3% time = 1 mo. @ $1700	1,700
	School Psychologist, 3 mo., 33 1/3% time = 1 mo. @ $1700	1,700
	Employee benefits	284
213	22 SCROC Instructors, 10 hours each @ $7.00 per hour	1,540

SECTION A: ORIGINAL BUDGET

Account Number	Computation	Expenditures Reported on VE-2.1 & 3.1
214	32 member district counselors + 3 SCROC counselors @ $50.00 ea.	1,750
220	Sr. Multi-Media Producer, $1240, 50% on project = 3 mo. @ $1240 Employee benefits	3,720 383
230		
290		
var.		
1269	Not necessary to itemize except that equipment costing $200 per unit or more should be reported on Schedule D	
var.		
	Total Proposed Current Expenses Less Local Funds	52,908 7,908
Less	Foundation Program Guarantee	
	__________ units of ADA x ____________ foundation program guarantee =	

Occupational Program According to Vocational Education and Occupation Bulletin OE-80061

Code Number	Title

For Departmental Use Only

R.S. ____________

B.C. ____________

U.C. ____________

SECTION B

REVISED BUDGET

WILSON RILES
Superintendent of Public Instruction
and Director of Education

STATE OF CALIFORNIA
DEPARTMENT OF EDUCATION
STATE EDUCATION BUILDING, 721 CAPITOL MALL, SACRAMENTO 95814

April 26, 1972

Miss Lil Nishimoto
Accounting Technician
Southern California Regional
   Occupational Center
2300 Crenshaw Boulevard
Torrance, California 90501

Dear Miss Nishimoto:

Your request dated April 20, 1972 for internal budget transfers, indicated on the attached page, for project number 19-20198-C062-71, is approved.

Cordially,

James H. Crandall

James H. Crandall, Coordinator
Research Coordinating Unit
Vocational Education Section
Phone: (916) 445-9430

JHC:dim
Attachment
cc: Judith Blase
    A. M. Suchesk
    R. Boldt

V.G

5-1-72

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
PROJECT #19-20198-C062-71
REVISED BUDGET
APRIL 18, 1972

	AMOUNT	TRANSFERRED FROM	TRANSFERRED TO	REASON TRANSFER IS REQUESTED
Project Director	$10,800.	#0112	#0220	Not a Certificated Employee
Senior Multi-Media Specialist	$ 8,202	#0112	#0290)	Consultant Services used rather than hiring Certificated Employee
Behavioral Scientist	$ 4,080.	#0112	#0290)	
Employee's Benefits	$ 837.	#0112		Various Indirect Expenditure Accounts
Educational Psychologist	$ 4,500.	#0120	#0290)	Consultant Services used rather than hiring Classified Employee
Field Worker	$ 3,960.	#0120	#0290)	
Clerk Typist	$ 7,152.	#0120	#0220	Charged to Classified Instructional Salary rather than Classified Administrative Salary
Employee's Benefits	$ 750.	#0120		Various Indirect Expenditure Accounts
Project report duplications	$ 800.	#0192	#0290)	Charged to Instructional Supplies rather than Administrative Supplies
Office Supplies, materials, etc.	$ 750.	#0192	#0290)	
Director of Occupational Training	$ 1,700.	#0212	#0212	NO CHANGE IN ACCOUNTING CLASSIFICATION
School Psychologist	$ 1,700.	#0212	#0214	Charged to Other Certificated Salaries of Instruction rather than to Supervisors' salaries
Employee's Benefits	$ 284.	#0212		Various Indirect Expenditure Accounts
22 SCROC Instructors	$ 1,540.	#0213	#0290	Use of Computer time required to compile report rather than instructors' salaries
District Counselors	$ 1,750.	#0214	#0290	Consultant services used rather than Certificated Employees
Sr. Multi-Media Producer	$ 3,720.	#0220	#0220	NO CHANGE IN ACCOUNTING CLASSIFICATION
Employee's Benefits	$ 383.	#0220		Various Indirect Expenditure Accounts
	$52,908.	TOTAL PROPOSED CURRENT EXPENSES		

SECTION C

EXPENDITURES

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
PERFORMANCE AND ATTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL

EXPENDITURES

	JULY 1971		AUGUST 1971		SEPTEMBER 1971	
	Local	V.E.A.	Local	V.E.A.	Local	V.E.A
ACCOUNT #0212						
Dir. of Occupational Training-Crump	$ 566.67	- -	- -	- -	- -	- -
ACCOUNT #0214						
School Psychologist - Mahan	- -	- -	$ 566.67	- -	- -	- -
ACCOUNT #0220						
Project Director - Suchesk	- -	$ 900.00	- -	$ 900.00	- -	$ 900.0
Sr. Multi-Media Producer - Rudd	- -	- -	- -	- -	- -	- -
Clerk Typist - Dold	- -	- -	- -	- -	- -	- -
ACCOUNT #0290						
Sr. Multi-Media Specialist - Blase	- -	$ 683.50	- -	$ 683.50	- -	$ 683.5
Behavioral Scientist - Stormes	- -	- -	- -	- -	- -	- -
Educational Psychologist - Jensen	- -	- -	- -	- -	- -	- -
Field Worker I - Swanson	- -	- -	- -	- -	- -	- -
Field Worker II - Harris	- -	- -	- -	- -	- -	- -
Statistical programmer - Nesbit	- -	- -	- -	- -	- -	- -
Project Report Duplications	- -	- -	- -	- -	- -	- -
Office Supplies, materials & Etc.	- -	- -	- -	- -	- -	- -
ACCOUNT #0800						
Employees' Benefits	$ 125.36	- -	$ 123.86	- -	$ 90.55	- -
ACCOUNT #1269						
Desk, chair, typewriter, adding machine, etc.	- -	- -	- -	- -	$1,257.95	- -
TOTAL	$ 692.03	$1,583.50	$ 690.53	$1,583.50	$1,348.50	$1,583.5

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
ID ATTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL TRAINING

EXPENDITURES

	AUGUST 1971		SEPTEMBER 1971		OCTOBER 1971		NOVEMBER 1971	
E.A.	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.
-	- -	- -	- -	- -	- -	- -	$ 566.67	- -
-	$ 566.67	- -	- -	- -	- -	- -	- -	- -
00.00	- -	$ 900.00	- -	$ 900.00	- -	$ 900.00	- -	$ 900.00
-	- -	- -	- -	- -	- -	- -	$ 117.34	$ 502.66
-	- -	- -	- -	- -	- -	$ 529.09	- -	$ 582.00
83.50	- -	$ 683.50	- -	$ 683.50	- -	$ 683.50	- -	$ 683.50
-	- -	- -	- -	- -	- -	- -	- -	$1,360.00
-	- -	- -	- -	- -	- -	- -	- -	$1,500.00
-	- -	- -	- -	- -	- -	- -	- -	$ 600.00
-	- -	- -	- -	- -	- -	- -	- -	$ 720.00
-	- -	- -	- -	- -	- -	- -	- -	- -
-	- -	- -	- -	- -	$ 1.17	- -	$ 18.99	- -
-	- -	- -	- -	- -	$ 23.03	- -	$ 26.45	- -
-	$ 123.86	- -	$ 90.55	- -	$ 131.71	- -	$ 231.41	- -
-	- -	- -	$1,257.95	- -	- -	- -	- -	- -
83.50	$ 690.53	$1,583.50	$1,348.50	$1,583.50	$ 155.91	$2,112.59	$ 960.86	$6,848.16

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
PERFORMANCE AND ATTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL

EXPENDITURES

	DECEMBER 1971		JANUARY 1972		FEBRUARY 1972	
	Local	V.E.A.	Local	V.E.A.	Local	V.E.A
ACCOUNT #0212						
Dir. of Occupational Training-Crump	- -	- -	- -	- -	- -	- -
ACCOUNT #0214						
School Psychologist - Mahan	- -	- -	- -	- -	$ 566.67	- -
ACCOUNT #0220						
Project Director - Suchesk	- -	$ 900.00	- -	$ 900.00	- -	$ 900.0
Sr. Multi-Media Producer - Rudd	$ 117.34	$ 502.66	$ 117.34	$ 502.66	- -	- -
Clerk Typist - Dold	- -	$ 582.00	- -	$ 582.00	- -	$ 582.0
ACCOUNT #0290						
Sr. Multi-Media Specialist - Blase	- -	$ 683.50	- -	$ 683.50	- -	$ 683.5
Behavioral Scientist - Stormes	- -	- -	- -	- -	- -	- -
Educational Psychologist - Jensen	- -	- -	- -	- -	- -	- -
Field Worker I - Swanson	- -	$ 600.00	- -	$ 600.00	- -	- -
Field Worker II - Harris	- -	$ 720.00	- -	- -	- -	$ 720.0
Statistical programmer - Nesbit	- -	- -	- -	- -	- -	- -
Project Report Duplications	$ 14.80	- -	$ 3.00	- -	$ 12.92	- -
Office Supplies, materials & Etc.	$ 25.16	- -	$ 70.85	- -	$ 6.41	- -
ACCOUNT #0800						
Employees' Benefits	$ 221.47	- -	$ 221.47	- -	$ 202.00	- -
ACCOUNT #1269						
Desk, chair, typewriter, adding machine, etc.	- -	- -	- -	- -	- -	- -
TOTAL	$ 378.77	$3,988.16	$ 412.66	$3,268.16	$ 788.00	$2,885.5

HERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
TTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL TRAINING

EXPENDITURES

	JANUARY 1972		FEBRUARY 1972		MARCH 1972		APRIL 1972	
.	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.
	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	$ 566.67	- -	- -	- -	$ 566.66	- -
00	- -	$ 900.00	- -	$ 900.00	- -	$ 900.00	- -	$ 900.00
66	$ 117.34	$ 502.66	- -	- -	- -	- -	$ 117.34	$ 502.66
00	- -	$ 582.00	- -	$ 582.00	- -	$ 582.00	- -	$ 582.00
50	- -	$ 683.50	- -	$ 683.50	- -	$ 683.50	- -	$ 683.50
	- -	- -	- -	- -	- -	$1,360.00	- -	- -
	- -	- -	- -	- -	- -	$1,500.00	- -	- -
00	- -	$ 600.00	- -	- -	- -	- -	- -	$ 750.00
00	- -	- -	- -	$ 720.00	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	-- -
	$ 3.00	- -	$ 12.92	- -	- -	- -	$ 1.74	- -
	$ 70.85	- -	$ 6.41	- -	$ 6.00	- -	- -	- -
	$ 221.47	- -	$ 202.00	- -	$ 167.59	- -	$ 264.56	- -
	- -	- -	- -	- -	- -	- -	- -	- -
6	$ 412.66	$3,268.16	$ 788.00	$2,885.50	$ 173.59	$5,025.50	$ 950.30	$3,418.16

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
PERFORMANCE AND ATTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL T

EXPENDITURES

	MAY 1972		JUNE 1972		JULY 1972	
	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.
ACCOUNT #0212						
Dir. of Occupational Training-Crump	- -	- -	- -	- -	- -	- -
ACCOUNT #0214						
School Psychologist - Mahan	- -	- -	- -	- -	- -	- -
ACCOUNT #0220						
Project Director - Suchesk	- -	$ 900.00	- -	$ 900.00	- -	- -
Sr. Multi-Media Producer - Rudd	$ 117.34	$ 502.66	$ 117.30	$ 502.70	- -	- -
Clerk Typist - Dold	- -	$ 611.10	- -	$ 611.10	- -	$ 626.3
ACCOUNT #0290						
Sr. Multi-Media Specialist - Blase	- -	$ 683.50	- -	$ 683.50	- -	$ 385.0
Behavioral Scientist - Stormes	- -	- -	- -	$1,360.00	- -	- -
Educational Psychologist - Jensen	- -	- -	- -	$1,500.00	- -	- -
Field Worker I - Swanson	- -	- -	- -	- -	- -	- -
Field Worker II - Harris	- -	- -	- -	- -	- -	- -
Statistical programmer - Nesbit	- -	- -	- -	- -	- -	- -
Project Report Duplications	- -	- -	- -	- -	- -	- -
Office Supplies, materials & Etc.	$ 10.40	- -	$ 8.80	- -	- -	- -
ACCOUNT #0800						
Employees' Benefits	$ 232.80	- -	$ 232.80	- -	$ 78.03	- -
ACCOUNT #1269						
Desk, chair, typewriter, adding machine, etc.	- -	- -	- -	- -	- -	- -
TOTAL	$ 360.54	$2,697.26	$ 358.90	$5,557.30	$ 78.03	$1,011.3

N CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
TUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL TRAINING

EXPENDITURES

JUNE 1972		JULY 1972		AUGUST 1972		SEPTEMBER 1972	
Local	V.E.A.	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.
- -	- -	- -	- -	$ 566.66	- -	- -	- -
- -	- -	- -	- -	- -	- -	- -	- -
- -	$ 900.00	- -	- -	- -	- -	- -	- -
$ 117.30	$ 502.70	- -	- -	- -	- -	- -	- -
- -	$ 611.10	- -	$ 626.38	- -	$ 626.38	- -	$ 626.38
- -	$ 683.50	- -	$ 385.00	- -	$ 385.00	- -	$ 385.00
- -	$1,360.00	- -	- -	- -	- -	- -	- -
- -	$1,500.00	- -	- -	- -	- -	- -	- -
- -	- -	- -	- -	- -	- -	- -	- -
- -	- -	- -	- -	- -	- -	- -	- -
- -	- -	- -	- -	- -	- -	- -	$1,000.00
- -	- -	- -	- -	$ 1.08	- -	$ .96	- -
$ 8.80	- -	- -	- -	- -	- -	- -	- -
$ 232.80	- -	$ 78.03	- -	$ 114.53	- -	$ 78.03	- -
- -	- -	- -	- -	- -	- -	- -	- -
$ 358.90	$5,557.30	$ 78.03	$1,011.38	$ 682.27	$1,011.38	$ 78.99	$2,011.38

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER
VEA PROJECT #19-73577-C062-72
PERFORMANCE AND ATTITUDE GUIDANCE SELECTION MODEL FOR VOCATIONAL T

EXPENDITURES

	OCTOBER 1972					
	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.
ACCOUNT #0212						
Dir. of Occupational Training-Crump	- -	- -				
ACCOUNT #0214						
School Psychologist - Mahan	- -	- -				
ACCOUNT #0220						
Project Director - Suchesk	- -	- -				
Sr. Multi-Media Producer - Rudd	- -	- -				
Clerk Typist - Dold	$ 404.34	$ 29.57				
ACCOUNT #0290						
Sr. Multi-Media Specialist - Blase	- -	$ 385.00				
Behavioral Scientist - Stormes	- -	- -				
Educational Psychologist - Jensen	- -	- -				
Field Worker I - Swanson	- -	- -				
Field Worker II - Harris	- -	- -				
Statistical programmer - Nesbit	- -	- -				
Project Report Duplications	$ 274.44	- -				
Office Supplies, materials & Etc.	- -	- -				
ACCOUNT #0800						
Employees' Benefits	$ 61.43	- -				
ACCOUNT #1269						
Desk, chair, typewriter, adding machine, etc.	- -	- -				
TOTAL	$ 740.21	$ 414.57				

FORNIA REGIONAL OCCUPATIONAL CENTER
PROJECT #19-73577-C062-72
UIDANCE SELECTION MODEL FOR VOCATIONAL TRAINING

EXPENDITURES

						PROJECT TOTAL	
ocal	V.E.A.	Local	V.E.A.	Local	V.E.A.	Local	V.E.A.
						$ 1,700.00	- -
						$ 1,700.00	- -
						- -	$ 10,800.00
						$ 704.00	$ 3,016.00
						$ 404.34	$ 7,152.00
						$ - -	$ 9,742.00
						- -	$ 4,080.00
						- -	$ 4,500.00
						- -	$ 2,550.00
						- -	$ 2,160.00
						- -	$ 1,000.00
						$ 329.10	- -
						$ 177.10	- -
						$ 2,577.60	- -
						$ 1,257.95	- -
						$ 8,850.09	$ 45,000.00

PART VII

APPENDICES

APPENDIX A

LISTING OF DISTRICTS AND SCHOOLS INVOLVED IN THE PROJECT

APPENDIX A

LISTING OF DISTRICTS AND SCHOOLS INVOLVED IN THE PROJECT

Hawthorne
Lawndale
Lennox
Leuzinger
El Segundo
Inglewood
Morningside
Hudnall
Palos Verdes
Rolling Hills
Miraleste
Aviation
Mira Costa
Pacific Shores
Redondo Union
Torrance
West
North
South
Kurt Sherry
California School For Boys
St. Mary's
Bishop Montgomery
Centinela Valley Continuation

APPENDIX B

BIBLIOGRAPHY OF MEASUREMENT TECHNIQUES

APPENDIX B

BIBLIOGRAPHY OF MEASUREMENT TECHNIQUES

Self-Esteem (attitude toward self):

Rosenberg, Morris Society and the Adolescent Self-Image.

Princeton University Press, 1965, P. 305 - 307.

Describes a self-esteem scale containing ten statements about one's attitude toward himself. Has four-point response format from "Strongly agree" to "Strongly disagree." Forms a Guttman scale with demonstrated reproducibility of 93%, scalability of items of 73%, and scalability of individuals of 72%.

Attitude Toward School:

Guilford, J. S. Values Inventory of Children and the Juvenile Attitude/Interest Inventory, unpublished manuscript, 1971. Table 2.

Gives six-factor solution for all items in the two inventories. One factor is identified as attitude toward school. Factor loading ranges from .62 to .30. Contains 15 items and has three-point response format from "Like" to "Dislike."

Maturity Index:

Edgerton, H. A., C. A. Ullmann, and R. W. Sylvester.

"The Performance Index: A Measure of Maturity of Young Adult Males." Measurement and Evaluation in Guidance, Vol. 3 No. 4 Winter 1971, P. 213 - 219.

Describes a 150 item performance index (available in four forms) which measures "facets of maturity" as three factors: social maturity, personal maturity, and vocational maturity. Based on factor loading of the facets. Items have two-response format: true, false.

Motivation:

(Add tape-recorded test)

Others Investigated:

Edwards Personal Preference Test

One sub scale on motivation - achievement

MAT (designed by Cattell)

(rated poor) paper & pencil, 3 sub tests, group administrated for low-adolescents.

Motivating Adolescent Achievement: Research & Psychological Educ.

Dr. Al Schuler is developing it. He is no longer with the Univ. a Dr. Lake seems to be heading the project.

Address: State University of New York (S.U.N.Y.)
Program in Humanistic Education
Albany, N. Y. Tel: 518-472-8680

Mukherjee Sentence Completion Test

Developed for American college students in 1969. Example of sentence:

"In general I may be described as:
1 - optomistic
2 - tolerant
3 - polite

address: Bishwa Nath Mukherjee, PhD
York University, Toronto, Canada

APPENDIX C

INITIAL VERSION OF THE ATTITUDE SURVEY

NAME____________________ DATE____________________

DATE OF BIRTH____________________ HIGH SCHOOL____________________

1. Who do you presently live with?

   A. Father & Mother

   B. Father

   C. Mother

   D. Other (Specify)____________________

2. How much schooling has your Father completed?

   A. 8th grade or less

   B. Some high school but did not graduate

   C. High school graduate

   D. Some college or technical training

   E. College graduate

   F. Advanced training beyond a Bachelors Degree

3. How much schooling has your Mother completed?

   A. 8th grade or less

   B. Some high school but did not graduate

   C. High school graduate

   D. Some college or technical training

   E. College graduate

   F. Advanced training beyond a Bachelors Degree

4. Indicate your Father's (or Legal Guardian's) occupation. (NOTE: NOT WHERE HE WORKS BUT WHAT HE DOES.) ____________________

5. Indicate the occupation of your Mother. (NOTE: NOT WHERE SHE WORKS BUT WHAT SHE DOES.)____________________

6. Do you plan to live at home after you graduate from High School?

YES______ NO_______

7. Do you expect to receive financial assistance from your parents after you graduate from High School? YES_____ NO_____

8. Do you presently plan to go to college after you graduate from High School?

YES_____ NO_____

9. Write down the job you intend to get or field you intend to go into after High School graduation.____

____

THE FOLLOWING QUESTIONS RELATE TO HOW YOU FEEL ABOUT VARIOUS THINGS INVOLVING SCHOOL AND YOUR FUTURE. THIS SURVEY IS BEING GIVEN TO 10,000 HIGH SCHOOL JUNIORS IN THIS GENERAL AREA. THIS IS NOT A TEST. THERE ARE NO "RIGHT" OR "WRONG" ANSWERS. WE URGE YOU TO ANSWER EACH QUESTION AS HONESTLY AS POSSIBLE RELATED TO YOUR ATTITUDES AND OPINIONS. YOUR ANSWERS WILL NOT BE AVAILABLE TO ANY OF YOUR TEACHERS OR COUNSELORS.

PLEASE READ THE INSTRUCTIONS FOR EACH SECTION OF THE SURVEY BEFORE PROCEEDING. THE SURVEY CONTAINS FIVE PARTS AND EACH PART REQUIRES A DIFFERENT KIND OF ANSWER. PUT YOUR NAME AT THE TOP OF EACH PAGE OF THE SURVEY. YOU MAY MARK YOUR ANSWERS ON THE QUESTION BOOKLET.

PART I:

THE PURPOSE OF THIS SECTION IS TO MEASURE THE EFFECTS OF YOUR TRAINING AND EXPERIENCE ON HOW YOU SEE YOURSELF AND THE WORLD YOU LIVE IN. IT CONTAINS 123 STATEMENTS. SOME OF THESE STATEMENTS ARE ABOUT THINGS YOU DO OR WOULD LIKE TO DO; OTHERS DESCRIBE YOUR OPINIONS.

-- YOUR ANSWER FOR EACH STATEMENT WILL BE EITHER TRUE OR FALSE.

-- IF A STATEMENT IS TRUE FOR YOU--IF IT DESCRIBES OR STATES WHAT YOU THINK OR BELIEVE, MARK THE ANSWER TRUE FOR THAT STATEMENT.

-- IF A STATEMENT IS FALSE FOR YOU--IF IT DOES NOT DESCRIBE OR STATE WHAT YOU THINK OR BELIEVE, MARK THE ANSWER FALSE FOR THAT STATEMENT.

-- THERE ARE NO RIGHT OR WRONG ANSWERS.

PART I CONTINUED:

T F 1. I feel that the work I have chosen is worthwhile.

T F 2. A man who knows his trade and works hard has as good a chance as someone who doesn't in getting a job.

T F 3. I expect to have to work hard on a job.

T F 4. A boss shouldn't mind it when you come to work late if you stay late that night.

T F 5. I never think about what I am going to say before going to apply for a job.

T F 6. I like to think about hard problems.

T F 7. I admire leaders who try to help you to do your job right.

T F 8. I like do-it-yourself hobbies.

T F 9. My job hopes always get blasted.

T F 10. Getting the job done is more important than getting it done my way.

T F 11. I would like to work on a job where I had a chance to use new methods.

T F 12. It's hard for me to imagine what I'll be doing five years from now.

T F 13. I think a lot about new ideas.

T F 14. I like to do things my own way; rules just get in the way.

T F 15. Hard workers are usually just afraid to loaf, for fear that the boss might catch them.

T F 16. I'd rather have a job that is interesting, even if I can do work that pays better.

T F 17. If sometimes there is too much work to be done, I take some home to finish.

T F 18. I enjoy work where I can figure out my own ways of doing things.

T F 19. I try to think of improvements in old ways of doing things.

T F 20. I'd rather do things my own way than follow rules.

T F 21. The best part of any job is the coffee break.

T F 22. Tests don't ever show what you know.

T F 23. I can't stay interested in anything.

PART I CONTINUED:

T F 25. You have to know the right people to get ahead.

T F 26. I often get so blue that I can't work well.

T F 27. I would work hard only if people gave me more credit for the work I did.

T F 28. I can't seem to get myself to do important things.

T F 29. I can't make myself do things that don't interest me.

T F 30. When I meet someone, I often think he is better than I am.

T F 31. I can't stick to the same task for long.

T F 32. I don't believe any job can be done well unless you follow the rules.

T F 33. I enjoy the competition of meeting deadlines.

T F 34. I have talked to people doing the kind of job I want.

T F 35. I've never been interested much in working.

T F 36. I try to learn whatever I can on my own that will help me keep a job.

T F 38. I don't think I chose the right work.

T F 39. I wouldn't work for low pay even if it would give me experience that would help me get the job I want later.

T F 40. By working a little harder than I am expected, I would try to make a good impression on the job.

T F 41. I can't seem to make up my mind about a job.

T F 42. I often wish that people didn't have to work for a living.

T F 43. I expect always to like whatever job I decide to take.

T F 44. I want easy money for dates and cars, that's about all.

T F 45. You have to have pride in yourself to get a job.

T F 46. I admire men who have good jobs.

T F 47. I have always known what kind of work I wanted to do in my life.

T F 48. I plan to understand what to do when I begin a job.

T F 49. You have to stay in school to get a good job these days.

T F 50. I am too lazy to really want to work hard.

PART I CONTINUED:

T F 51. I need a job to feel happy.

T F 52. There are jobs open in my kind of work.

T F 53. If you want to get a good job you must have some education.

T F 54. I like to follow instructions and do what is expected of me.

T F 55. I have some hobbies now that will help me in the work I want.

T F 56. I'll work when I feel like it.

T F 57. Most bosses are too bossy.

T F 58. It's smart to save your money to go to school.

T F 59. I think we should just eat, drink, and be merry, for tomorrow we die.

T F 60. I am good at finding excuses for breaking an appointment.

T F 61. You can't make plans for a job because you never know what is going to happen.

T F 62. With practice, I could handle any problem on a job.

T F 63. If I didn't get credit for the job I do, I would quit.

T F 64. I'm all mixed up about what I want out of life.

T F 65. If I couldn't find a job I liked within a couple of days, I'd stop looking.

T F 66. As soon as I get a little money ahead I feel like quitting a job.

T F 67. I have never had anyone to look up to, so I don't know what kind of job I want.

T F 68. It is important to me to be able to use all of my knowledge on a job.

T F 69. A good worker doesn't mind a strict boss.

T F 70. I'd rather work hard for one hour than try to look busy for an hour.

T F 71. The best job is one that is routine.

T F 72. I don't want any job where I have to work overtime.

T F 73. I would bring things of my own to work if they would be useful to others.

T F 74. I am good at getting ideas.

T F 75. I don't know what to do without being told.

T F 76. I would learn a trade if I didn't have to do things by the book.

PART I CONTINUED:

T F 77. I want to be able to take pride in my work.

T F 78. I expect to be paid well or I won't work hard.

T F 79. I like work where I can do things in my own way.

T F 80. I never work too fast, because more will be expected of me next time.

T F 81. I expect myself to try to do better and better in life, rather than stay at the same level.

T F 82. A job ties you down too much.

T F 83. It doesn't pay much to think for yourself on any job.

T F 84. If I didn't like a new job after two days, I'd quit.

T F 85. A person should never give up any pleasure for his job.

T F 86. I would change to any new job if the pay were better.

T F 87. The best job is one where you can leave early all the time.

T F 88. I find it hard to work under strict rules and regulations.

T F 89. I usually put off doing unpleasant tasks.

T F 90. Liking your work is what matters most.

T F 91. If I needed a job badly, I would do any kind of work I could find.

T F 92. It makes a man feel good to finish a task on his job.

T F 93. Often when somebody tells me about his job, I try to imagine myself doing that job.

T F 94. You usually get a raw deal from your boss.

T F 95. It bothers me to have people tell me how to do something, even when I don't know.

T F 96. If I am nice enough, I can get any job.

T F 97. I would only take a job near home.

T F 98. I feel pretty good about my chances in life.

T F 99. Work is good only because it lets you buy the things you want.

T F 100. I don't like to do anything I'm not good at.

T F 101. I expect to work as much as I can in my life.

T F 102. I wouldn't take a job if I had to get up very early in the morning.

T F 103. I like to read about people who do the kind of work I want to do.

PART I CONTINUED:

T F 104. To get ahead on a job you have to do more work than others most of the time.

T F 105. I would take a long, hard course if it would prepare me for a good job.

T F 106. I would leave my home town to get a job I wanted.

T F 107. The person who has been honest and tried hard will have an easier time finding a job.

T F 108. It's not too hard to get a job if you have skill and are willing to work.

T F 109. Everyone has ability, and should try to make the best use of it.

T F 110. Bosses usually promote their workers on the basis of ability.

T F 111. I know what I can do best.

T F 112. I can repeat a message accurately.

T F 113. People who don't mind working overtime are suckers.

T F 114. I don't respect a person who can't keep a steady job.

T F 115. I never bothered to think about what I'll do with my life.

T F 116. I would play sick to get out of something.

T F 117. To become a leader on any job, you must know more than just your own work.

T F 118. I would like a job I don't have to pay much attention to.

T F 119. If a job were not fun I would quit.

T F 120. My job interests are always changing.

T F 121. I am in favor of a 30 hour week.

T F 122. I would not take a job if it were near home.

T F 123. Working is a bad way to spend your life.

PART II:

THE FOLLOWING IS A LIST OF THINGS WHICH MOST PEOPLE EITHER LIKE OR DISLIKE.

-- IF YOU DISLIKE AN ITEM, CIRCLE THE "D".

-- IF YOU LIKE AN ITEM, CIRCLE THE "L".

-- IF YOU DON"T CARE ONE WAY OR THE OTHER, CIRCLE THE "DC".

PLEASE ANSWER EVERY ITEM AND GIVE ONLY ONE ANSWER TO EACH ITEM.

AGAIN, THERE ARE NO "RIGHT" OR "WRONG" ANSWERS.

		LIKE	DON'T CARE	DISLIKE
1.	PROBATION OFFICERS	L	DC	D
2.	TEACHERS	L	DC	D
3.	BEING ON TIME	L	DC	D
4.	READING	L	DC	D
5.	FILMS IN CLASS	L	DC	D
6.	GOING TO COLLEGE	L	DC	D
7.	LAWS	L	DC	D
8.	TEXTBOOKS	L	DC	D
9.	GETTING A JOB	L	DC	D
10.	ADULTS	L	DC	D
11.	DOING HOMEWORK	L	DC	D
12.	X-RATED MOVIES	L	DC	D
13.	SCHOOL	L	DC	D
14.	TAKING ORDERS	L	DC	D
15.	COUNSELORS	L	DC	D
16.	VOCATIONAL COURSES	L	DC	D
17.	STUDYING	L	DC	D
18.	WORKING FOR FREE	L	DC	D
19.	ASKING PERMISSION	L	DC	D
20.	SCHOOL PRINCIPALS	L	DC	D

PART II CONTINUED:

	LIKE	DON'T CARE	DISLIKE
21. RULES	L	DC	D
22. MATHEMATICS	L	DC	D
23. DOING THINGS MY OWN WAY	L	DC	D
24. FIGURING THINGS OUT	L	DC	D
25. GETTING MARRIED	L	DC	D
26. MAKING PLANS	L	DC	D
27. GETTING PAID TO DO WHAT I LIKE	L	DC	D
28. TELLING PEOPLE WHAT TO DO	L	DC	D
29. HAVING A JOB	L	DC	D
30. MOVING AWAY FROM HOME	L	DC	D
31. DOING THINGS I HAVE TO DO	L	DC	D
32. HAVING CHILDREN	L	DC	D

PART III:

THE FOLLOWING STATEMENTS DESCRIBE VARIOUS SITUATIONS WHICH YOU MAY HAVE EXPERIENCED. AT THE END OF EACH SITUATION IS A SERIES OF SOLUTIONS TO THE SITUATION. CHOOSE THE ANSWER WHICH BEST DESCRIBES WHAT YOU WOULD DO IF YOU WERE IN THAT SITUATION. MARK THIS CHOICE "1" IN THE SPACE PROVIDED IN FRONT OF THE ITEM. THEN CHOOSE THE ANSWER WHICH DESCRIBES THE NEXT-BEST THING TO DO AND MARK THIS CHOICE "2" IN THE SPACE IN FRONT OF THAT ITEM. CONTINUE MARKING THE CHOICES "3" FOR THIRD BEST, "4" FOR FOURTH BEST AND "5" FOR THE WORST SOLUTION TO THE SITUATION. NUMBER ALL ANSWERS TO EACH SITUATION FROM 1 TO 5, WITH "1" ALWAYS THE "BEST" SOLUTION AND "5" ALWAYS THE "WORST SOLUTION". REMEMBER, THERE ARE NO "RIGHT" ANSWERS.

1. YOU HAVE BEEN WORKING AT A PLACE FOR ABOUT 6 MONTHS. THE WORK YOU ARE DOING IS INTERESTING TO YOU AND YOU HAVE BEEN DOING A GOOD JOB. ON MONDAY WHEN YOU COME TO WORK, YOU ARE INTRODUCED TO YOUR NEW BOSS. YOU'VE JUST BARELY MET HIM AND ALREADY HE'S ORDERING YOU AROUND. YOUR OLD BOSS NEVER ACTED THAT WAY. BESIDES, HE'S MAKING YOU DO THINGS YOU DON'T LIKE TO DO AND WEREN"T A PART OF YOUR JOB BEFORE. WHAT WOULD YOU DO?

__________A. QUIT

__________B. TELL HIM OFF

__________C. WAIT IT OUT AND HOPE THINGS GET BETTER

__________D. TRY AND TALK TO HIM AND TELL HIM WHAT YOUR JOB ASSIGNMENT IS.

__________E. CHECK OUT YOUR NEW ASSIGNMENTS AND SEE IF YOU LIKE THEM BETTER AFTER YOU GET USED TO THEM.

2. YOU HAD NEVER REALLY TALKED ABOUT IT WITH YOUR FOLKS, BUT YOU HAD ALWAYS ASSUMED THAT AFTER HIGH SCHOOL THEY WOULD BE ABLE TO SEND YOU TO COLLEGE. YOUR GRADES ARE GOOD, BUT NOT THAT GREAT. YOUR PARENTS HAVE JUST TOLD YOU THAT THEY CAN'T POSSIBLY AFFORD TO SUPPORT YOU AFTER YOU GRADUATE FROM HIGH SCHOOL. IT MATTERS BECAUSE YOU'VE DECIDED WHAT YOU WANT TO BE AND IT REQUIRES A COLLEGE EDUCATION. WHAT WOULD YOU DO?

__________A. TRY TO RAISE YOUR GRADE POINT AVERAGE SO YOU CAN GET A SCHOLARSHIP.

__________B. GIVE UP COLLEGE AND START LOOKING FOR A FULL-TIME JOB AFTER YOU GRADUATE FROM HIGH SCHOOL.

__________C. INVESTIGATE THE POSSIBILITY OF GOING TO COLLEGE DURING THE EVENINGS AND LOOK FOR A PART-TIME JOB.

__________D. GET MAD AT YOUR FOLKS AND PLAN TO MOVE OUT AS SOON AS POSSIBLE.

__________E. CHANGE YOUR MIND ABOUT WHAT YOU WANT TO BE. LOOK FOR SOMETHING THAT DOESN'T REQUIRE COLLEGE.

3. YOU HAVE JUST BEEN TOLD THAT YOU HAVE A CHANCE TO LEARN A NEW TRADE AT THE EXPENSE OF THE COMPANY THAT YOU WORK FOR. THE FIELD IS BRAND NEW AND IT INVOLVES LEARNING A LOT OF NEW SKILLS. YOUR BOSS SEEMS TO THINK THAT YOU'LL DO WELL AT THE JOB. YOU'RE NOT SO SURE. WHAT WOULD YOU DO?

__________A. GIVE IT A TRY. YOU CAN ALWAYS GO BACK TO YOUR OLD JOB IF YOU FAIL.

__________B. TURN IT DOWN. IF YOU FAIL, YOU MIGHT LOSE YOUR OLD JOB TOO.

__________C. TRY AND FIND OUT MORE A OUT THE NEW JOB BEFORE YOU DECIDE.

__________D. TURN IT DOWN. YOU'RE SURE YOU LIKE YOUR OLD JOB BETTER.

__________E. TAKE IT. AT LEAST THE JOB SOUNDS INTERESTING AND CHANCES ARE YOU'LL DO WELL.

4. YOUR FOLKS HAVE ALWAYS SAID THAT YOU SHOULD GO TO COLLEGE AFTER YOU GRADUATE. THE TROUBLE IS THAT YOU'VE NEVER BEEN A GOOD STUDENT AND DON'T ENJOY BOOKS OR STUDYING. YOU'VE CASUALLY MENTIONED THAT MAYBE YOU SHOULD STUDY TO GET A JOB AFTER YOU GRADUATE, BUT THEY DON'T EVEN WANT TO DISCUSS IT. WHAT WOULD YOU DO?

__________A. GO TO COLLEGE. IT'S THE ONLY WAY TO GET AHEAD ANYWAY.

__________B. ENROLL IN A VOCATIONAL COURSE JUST IN CASE YOU CAN CHANGE THEIR MIND.

__________C. TALK WITH PEOPLE ABOUT THE VARIOUS JOBS THAT INTEREST YOU AND FIND OUT WHAT KIND OF TRAINING YOU NEED. MAYBE WHAT YOU REALLY NEED IS A 2-YEAR JUNIOR COLLEGE PROGRAM.

__________D. WHY PLAN AHEAD! WHEN THE TIME COMES YOU WON'T HAVE ANY CHOICE IN THE MATTER ANYHOW.

__________E. QUIT SCHOOL AND GET A JOB NOW. YOUR FOLKS ARE BEING UNREASONABLE.

5. YOU HAVE DECIDED WHAT YOU REALLY WANT TO DO WITH YOUR LIFE. IT INVOLVES SEVERAL YEARS OF TRAINING. DURING THAT TIME YOU WON'T MAKE MUCH MONEY. MEANWHILE A BUDDY OF YOURS HAS DREAMED UP A SCHEME TO GO INTO BUSINESS AFTER GRADUATION. HIS DAD WILL PUT UP THE MONEY AND HE WANTS YOU TO BE HIS PARTNER. IN TERMS OF MONEY IT'S A PRETTY SURE THING, BUT IT'S IN A FIELD THAT DOESN'T INTEREST YOU MUCH. WHAT WOULD YOU DO?

__________A. TELL YOUR FRIEND TO FORGET IT. YOU ALREADY KNOW WHAT YOU WANT TO DO.

__________B. TELL HIM YOU ARE INTERESTED, BUT ONLY ON A PART-TIME BASIS. IT'LL BE A GOOD WAY TO MAKE MONEY WHILE YOU TRAIN FOR YOUR JOB.

__________C. TELL HIM YOU'LL TAKE IT. MONEY IS THE MOST IMPORTANT THING ANYWAY.

__________D. TELL HIM YOU'LL THINK IT OVER. HIS PLANS AND YOURS MAY CHANGE BEFORE GRADUATION.

__________E. DESCRIBE YOUR PLANS TO HIM. IF HE REALLY WANTS YOU FOR A PARTNER, HE CAN REARRANGE HIS PLANS TO BE MORE IN LINE WITH YOURS.

6. MOST OF YOUR FRIENDS HAVE ALREADY DECIDED WHAT THEY WANT TO DO AFTER GRADUATION. YOU AREN'T SURE. IN FACT, YOU FIND THE WHOLE MESS EXTREMELY CONFUSING AND DEPRESSING. YOU'RE AN AVERAGE STUDENT AND SO FAR YOU'VE NOT DISCOVERED ANY VOCATION THAT YOU HAVE A REAL INTEREST IN OR TALENT FOR. WHAT WOULD YOU DO?

__________A. HANG LOOSE. SOMETHING ALWAYS TURNS UP.

__________B. GET SOME BOOKS ON DIFFERENT CAREERS. MAYBE YOU'LL FIND SOMETHING THAT INTERESTS YOU.

__________C. PUT OFF ANY DECISION UNTIL AFTER GRADUATION. THERE'S ALWAYS JUNIOR COLLEGE.

__________D. ENROLL IN A VOCATIONAL COURSE THAT YOU THINK YOU MIGHT LIKE.

__________E. PLAN TO DO WHAT YOUR BEST FRIEND IS GOING TO DO. IT SOUNDS EASY AND YOU CAN ALWAYS CHANGE YOUR MIND LATER.

7. YOU HAVE JUST BEEN GIVEN A BIG ASSIGNMENT ON YOUR NEW JOB. IF YOU DO WELL, YOU WILL IMPRESS EVERYONE AND MAYBE GET A PROMOTION. IF YOU DON'T DO WELL, YOU MAY COST THE COMPANY A LOT OF MONEY. YOU'VE NEVER DONE ANYTHING LIKE IT BEFORE AND YOU'RE WORRIED ABOUT MAKING IT. WHAT WOULD YOU DO?

__________A. GET SICK FOR A WEEK. THAT WAY THEY'LL GIVE THE JOB TO SOMEONE ELSE AND YOU'LL BE OFF THE HOOK ALL THE WAY AROUND.

__________B. GET YOUR SUPERVISOR TO HELP YOU SO IF IT DOESN'T COME OUT ALL RIGHT, IT'LL BE HIS FAULT TOO.

__________C. TURN IT DOWN. WHY TAKE A CHANCE.

__________D. TAKE IT. NO ONE HAS TO KNOW THAT YOU'RE UNSURE OF YOURSELF. IF YOU DO WELL, YOU'LL MAKE A BIG IMPRESSION.

__________E. TAKE IT, BUT GET ALL THE HELP YOU CAN. DON'T WORRY ABOUT WHAT PEOPLE THINK. THE MOST IMPORTANT THING IS TO DO IT RIGHT.

8. YOU ARRIVE AT YOUR FIRST CLASS IN THE MORNING, AND YOUR TEACHER'S NOT THERE. NEITHER IS THE SUBSTITUTE. THERE'S A NOTE ON THE BOARD SAYING THE SUBSTITUTE IS LATE AND THE TEACHER IS SICK AND WON'T BE IN TODAY, BUT THAT YOU SHOULD CONTINUE WITH WHAT YOU STARTED YESTERDAY. THAT ASSIGNMENT WAS DUE TO BE TURNED IN TOMORROW. WHAT WOULD YOU DO?

__________A. LEAVE. WHY STICK AROUND FOR NOTHING?

__________B. PRETEND TO START WORKING AND WAIT AWHILE BEFORE YOU LEAVE. HE MAY TURN UP AFTER ALL.

__________C. STAY, BUT TALK WITH FRIENDS.

__________D. STAY AND DO THE ASSIGNMENT. EVEN IF HE DOESN'T COLLECT IT TOMORROW, IT'LL BE NICE TO HAVE IT OUT OF THE WAY.

__________E. STAY AND FINISH AN ASSIGNMENT FOR ANOTHER CLASS.

9. YOUR TEACHER HAS GIVEN YOU A SPECIAL ASSIGNMENT. IT INVOLVES SOLVING A TYPE OF PROBLEM THAT YOU HAVE NOT BEEN TAUGHT BEFORE. WHICH WOULD YOU DO?

__________A. ASK THE TEACHER FOR DIRECTIONS ON SOLVING THE PROBLEM.

__________B. COMPLAIN THAT YOU CAN'T DO IT.

__________C. TRY TO FIGURE IT OUT ON YOUR OWN.

__________D. GO TO THE LIBRARY FOR HELP.

__________E. FAKE IT.

10. YOUR TEACHER HAS GIVEN YOU A LIST OF PROJECTS FOR YOU TO WORK ON. YOU ARE TO SELECT ONE. NONE OF THEM LOOK TOO BAD. WHICH ONE WOULD YOU BE MOST INCLINED TO CHOOSE?

__________A. ONE THAT SEEMS CLOSEST TO YOUR CURRENT INTERESTS.

__________B. ONE THAT SEEMS FURTHEST FROM CURRENT INTERESTS.

__________C. ONE THAT SEEMS EASIEST TO DO.

__________D. ONE THAT SEEMS TO BE THE BIGGEST CHALLENGE.

__________E. ONE THAT SHOULD MAKE THE BEST IMPRESSION ON YOUR TEACHER.

PART III CONTINUED:

11. YOU HAVE COMPLETED A PROJECT FOR YOUR BOSS. WHEN YOU SHOW IT TO HIM, HE IS OBVIOUSLY NOT PLEASED WITH YOUR WORK. WHICH WOULD YOU DO?

__________A. OFFER TO DO IT OVER.

__________B. TELL HIM HE SHOULD DO IT INSTEAD OF YOU.

__________C. ASK HIM TO DESCRIBE VERY CAREFULLY EACH ERROR THAT YOU MADE.

__________D. POINT OUT ANYTHING ABOUT YOUR PROJECT THAT IS ESPECIALLY GOOD ABOUT IT.

__________E. TELL HIM YOU DIDN'T THINK THE PROJECT WAS THAT IMPORTANT.

ATTITUDE TOWARD SELF SCALE

PART IV

PLEASE RATE YOURSELF ON THE FOLLOWING ITEMS. EACH ITEM IS FOLLOWED BY A SCALE FROM STRONGLY AGREE TO STRONGLY DISAGREE. IF YOU STRONGLY AGREE WITH AN ITEM, PUT AN "X" IN THE SPACE ABOVE "STRONGLY AGREE".

X				
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

IF YOU STRONGLY DISAGREE WITH AN ITEM, PUT AN "X" IN THE SPACE ABOVE "STRONGLY DISAGREE".

				X
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

IF YOU SIMPLY AGREE OR DISAGREE, BUT NOT STRONGLY, PUT AN "X" IN THE SPACE ABOVE ONE OF THESE. IF YOU ARE UNCERTAIN, INDICATE THIS IN YOUR ANSWER. PLEASE ANSWER EACH QUESTION. REMEMBER THERE ARE NO "RIGHT" OR "WRONG" ANSWERS!

PART IV CONTINUED:

1. I feel I have a number of good qualities.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

2. At times I think that I am no good at all.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

3. I think it is very important that others think of me as responsible.

Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree

4. I feel I do not have much to be proud of.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

5. Relative to others I know, I am above average.

Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree

6. I think other prople should not have any confidence in me.

Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree

7. I feel I have much to be proud of.

Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree

8. I certainly feel useless at times.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

9. On the whole, I am satisfied with myself.

Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree

. I wish I could have more respect for myself.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

PART IV CONTINUED:

11. I feel that I have a number of good qualities.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

12. All in all, I am inclined to feel that I am a failure.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

13. I am able to do things as well as most other people.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

14. I feel it doesn't matter what happens to me.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

15. I feel that I am a person of worth, at least on an equal plane with others.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

16. I get blue for no reason.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

17. I take a positive attitude toward myself.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

18. Sometimes I don't think life is worth living.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

19. I know what kind of person I want to be.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

. I feel pretty good about my chances in life.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

PART IV CONTINUED:

21. I feel left out of things in a group.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

22. I have had more than my share of bad luck.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

APPENDIX D

PERFORMANCE PROFILE CONVERSION CHART

PERFORMANCE PROFILE CONVERSION CHART

SD %AGE	-3σ .13					-2σ 13.59			-1σ 34.13				MEAN				+1σ 34.13				+2σ 13.59				+3σ SD .13
GRADES	BSK						F/D-				D+/C-				C+/B-			B+/A					TALENTED		
%ILES			1		2	5	7	10	16	24	31	40	50	60	69	77	84	90	93	95	98			99......	
IQ	52	56	60	64	68	72	76	80	84	88	92	96	100	104	108	112	116	120	124	128	132	136	140	144	148
GATB			50		60		70		80		90		100		110		120		130		140		150		160
GPA					0.25		.5	.75	1.0		1.5		2.0		2.5		3.0		3.5		4.0				
STANINES					1		2		3		4		5		6		7		8		9				
CEEB	200				300				400				500				600				700				800
GRADES																									AGES
7					3.0		3.7		4.6		5.9		7.0		8.0		8.8		9.6		10.4		12.5		12
8					3.7		4.4		5.4		6.8		8.0		9.0		9.7		10.5		13.4		14.2		13
9					4.3		5.0		6.2		7.7		9.0		9.8		10.6		13.4		15.6		16.6		14
10					4.8		5.5		7.0		8.6		10.0		10.7		13.4		15.4		17.0		G70*		15
11					5.2		5.9		7.7		9.4		11.0		12.8		14.2		16.6		G70*		G80*		16
12					5.5		6.3		8.3		10.0		12.0		14.0		17.0		G70*		G80*		G90*		17

* COLLEGE PERCENTILE RANK

APPENDIX E

LISTING OF CAREER OPPORTUNITY PROGRAMS

CAREER OPPORTUNITY PROGRAMS

Too often high school students have little or no information about the duties, responsibilities, or skills required to achieve success in a specific career field.

This series of Career Opportunity programs is designed to provide the student an inside view of a number of occupations. Each program shows the working environment and skills utilized in a particular vocation. It also describes the attributes which are helpful in the work and shows the training offered at SCROC to provide these skills.

PROGRAM #	TITLE	NO. FRAMES	TIME
1	Business Procedures	43	6:12
2	Key Punch	39	5:36
3	Data Processing Equip. Operation	44	5:28
4	Automotive Tune-Up	34	4:30
5	Dental Assisting	34	5:26
6	Medical Assisting	43	6:12
7	Air Conditioning & Refrigeration	35	5:23
8	Major Appliance Service	40	6:18
9	Office & Business Machine Service	41	6:04
10	Radio & TV Service	39	6:23
11	Machine Tool Operation	36	4:59
12	Welding	39	5:50
13	Auto Painting	37	4:53
14	Automotive Diagnosis	40	5:06
15	Auto Body Repair	42	5:27
16	Auto Parts	37	5:25
17	Brakes & Front End Repair	41	6:13
18	Power Mechanics	38	5:02
19	Transmission Repair	36	5:12
20	Electro-Mechanical Service	50	7:20
21	Auto Engine Repair	32	4:20

APPENDIX F

CAREER OPPORTUNITY PROGRAM DATA COLLECTION FORM

SOUTHERN CALIFORNIA REGIONAL OCCUPATIONAL CENTER

CAREER OPPORTUNITY PROGRAMS

Student ______________________ Date: ____________

School: ____________________________

Viewed in: Counselor's Office ☐ Classroom ☐

Other ________________ ☐

Program(s) Viewed: _______________ _______________

_______________ _______________

Counselor's Comments: ____________________________

____

APPENDIX G

KEY FOR SCORING THE MOTIVATION AND MATURITY TESTS

MATURITY TEST KEY

PART I CONTINUED

T [✓ F] 1. A boss shouldn't mind it when you come to work late if you stay late that night.

[✓ T] F 2. I like to think about hard problems.

[✓ T] F 3. I like do-it-yourself hobbies.

T [✓ F] 4. My job hopes always get blasted.

[✓ T] F 5. I would like to work on a job where I had a chance to use new methods.

T [✓ F] 6. Hard workers are usually just afraid to loaf, for fear that the boss might catch them.

[✓ T] F 7. I'd rather have a job that is interesting, even if I can do work that pays better.

[✓ T] F 8. I enjoy work where I can figure out my own ways of doing things.

T [✓ F] 9. I'd rather do things my own way than follow rules.

T [✓ F] 10. I can't seem to get myself to do important things.

T [✓ F] 11. I can't make myself do things that don't interest me.

T [✓ F] 12. When I meet someone, I often think he is better than I am.

T [✓ F] 13. I don't believe any job can be done well unless you follow the rules.

[✓ T] F 14. I have talked to people doing the kind of job I want.

T [✓ F] 15. I can't seem to make up my mind about a job.

T [✓ F] 16. I often wish that people didn't have to work for a living.

[✓ T] F 17. I expect always to like whatever job I decide to take.

T [✓ F] 18. I want easy money for dates and cars, that's about all.

[✓ T] F 19. I admire people who have good jobs.

[✓ T] F 20. You have to stay in school to get a good job these days.

[✓ T] F 21. If you want to get a good job, you must have some education.

[✓ T] F 22. I have some hobbies now that will help me in the work I want.

T [✓ F] 23. I'll work when I feel like it.

T [✓ F] 24. I think we should just eat, drink and be merry, for tomorrow we die.

T [✓ F] 25. You can't make plans for a job because you never know what is going to happen.

Continue to next page

PART I CONTINUED

T [✓ F] 26. If I couldn't find a job I liked within a couple of days, I'd stop looking.

[✓ T] F 27 A good worker doesn't mind a strict boss.

T [✓ F] 28. The best job is one that is routine.

T [✓ F] 29. I don't want any job where I have to work overtime.

[✓ T] F 30. I am good at getting ideas.

T [✓ F] 31. I expect to be paid well or I won't work hard.

T [✓ F] 32. I like work where I can do things in my own way.

T [✓ F] 33. It doesn't pay much to think for yourself on any job.

T [✓ F] 34. A person should never give up any pleasure for his job.

T [✓ F] 35. I would change to any new job if the pay were better.

T [✓ F] 36. I find it hard to work under strict rules and regulations.

[✓ T] F 37. If I needed a job badly, I would do any kind of work I could find.

[✓ T] F 38. Often when somebody tells me about their job, I try to imagine myself doing that job.

[✓ T] F 39. I expect to work as much as I can in my life.

T [✓ F] 40. I wouldn't take a job if I had to get up very early in the morning.

[✓ T] F 41. I like to read about people who do the kind of work I want to do.

[✓ T] F 42. I would take a long, hard course if it would prepare me for a good job.

[✓ T] F 43. I would leave my home town to get a job I wanted.

[✓ T] F 44. It's not too hard to get a job if you have skill and are willing to work.

[✓ T] F 45. I know what I can do best.

[✓ T] F 46. I don't respect a person who can't keep a steady job.

T [✓ F] 47. I never bothered to think about what I'll do with my life.

T [✓ F] 48. I would play sick to get out of something.

T [✓ F] 49. I would like a job I don't have to pay much attention to.

T [✓ F] 50. My job interests are always changing.

Continue to next page

PART II

THE FOLLOWING PARAGRAPHS DESCRIBE VARIOUS SITUATIONS WHICH YOU MAY HAVE EXPERIENCED. AT THE END OF EACH SITUATION ARE A SERIES OF SOLUTIONS TO EACH SITUATION.

FIRST CHOOSE THE ANSWER WHICH BEST DESCRIBES WHAT YOU WOULD DO IF YOU WERE IN THAT SITUATION. MARK THIS CHOICE "1" IN THE SPACE PROVIDED IN FRONT OF THE ITEM.

THEN CHOOSE THE ANSWER WHICH DESCRIBES THE WORST SOLUTION TO THE SITUATION. MARK THAT CHOICE "4" IN THE SPACE PROVIDED IN FRONT OF THE ITEM.

REMEMBER "1" IS ALWAYS THE "BEST" SOLUTION AND "4" ALWAYS THE "WORST" SOLUTION. THERE ARE NO "RIGHT" ANSWERS.

MOTIVATION TEST KEY

1. YOUR TEACHER HAS GIVEN YOU A LIST OF PROJECTS FOR YOU TO WORK ON. YOU ARE TO SELECT ONE. NONE OF THEM LOOK TOO BAD. WHICH ONE WOULD YOU BE MOST INCLINED TO CHOOSE?

+1 A. ONE THAT SEEMS MOST INTERESTING.

-1 B. ONE THAT SEEMS EASIEST TO DO.

+2 C. ONE THAT SEEMS TO BE THE BIGGEST CHALLENGE.

0 D. ONE THAT SHOULD MAKE THE BEST IMPRESSION ON YOUR TEACHER.

2. YOU HAVE BEEN WORKING AT A PLACE FOR ABOUT 6 MONTHS. THE WORK YOU ARE DOING IS INTERESTING TO YOU AND YOU HAVE BEEN DOING A GOOD JOB. ON MONDAY WHEN YOU COME TO WORK, YOU ARE INTRODUCED TO YOUR NEW BOSS. YOU'VE JUST BARELY MET HIM AND ALREADY HE'S ORDERING YOU AROUND. YOUR OLD BOSS NEVER ACTED THAT WAY. BESIDES, HE'S MAKING YOU DO THINGS YOU DON'T LIKE TO DO AND WEREN'T A PART OF YOUR JOB BEFORE. WHAT WOULD YOU DO?

-1 A. QUIT.

-1 B. TELL HIM OFF.

0 C. WAIT IT OUT AND HOPE THINGS GO BACK TO NORMAL.

+1 D. TRY OUT YOUR NEW ASSIGNMENTS AND SEE IF YOU LIKE THEM AFTER YOU GET USED TO THEM.

Continue to next page

PART II CONTINUED

3. YOU HAD NEVER REALLY TALKED ABOUT IT WITH YOUR FOLKS, BUT YOU HAD ALWAYS ASSUMED THAT AFTER HIGH SCHOOL THEY WOULD BE ABLE TO SEND YOU TO COLLEGE. YOUR GRADES ARE GOOD, BUT NOT THAT GREAT. YOUR PARENTS HAVE JUST TOLD YOU THAT THEY CAN'T POSSIBLY AFFORD TO SUPPORT YOU AFTER YOU GRADUATE FROM HIGH SCHOOL. IT MATTERS BECAUSE YOU'VE DECIDED WHAT YOU WANT TO BE AND IT REQUIRES A COLLEGE EDUCATION. WHAT WOULD YOU DO?

+1 A. TRY TO RAISE YOUR GRADE POINT AVERAGE SO YOU CAN GET A SCHOLARSHIP.

0 B. GIVE UP COLLEGE AND START LOOKING FOR A FULL-TIME JOB AFTER YOU GRADUATE FROM HIGH SCHOOL.

+1 C. INVESTIGATE THE POSSIBILITY OF GOING TO COLLEGE DURING THE EVENINGS AND LOOK FOR A PART-TIME JOB.

-1 D. GET MAD AT YOUR FOLKS AND PLAN TO MOVE OUT AS SOON AS POSSIBLE.

4. YOU HAVE JUST BEEN TOLD THAT YOU HAVE A CHANCE TO LEARN A NEW TRADE AT THE EXPENSE OF THE COMPANY THAT YOU WORK FOR. THE FIELD IS BRAND NEW AND IT INVOLVES LEARNING A LOT OF NEW SKILLS. YOUR BOSS SEEMS TO THINK THAT YOU'LL DO WELL AT THE JOB. YOU'RE NOT SO SURE. WHAT WOULD YOU DO?

0 A. GIVE IT A TRY. IT IT'S TOO HARD, YOU CAN ASK FOR YOUR OLD JOB BACK.

-1 B. TURN IT DOWN. WHY BOTHER!

-1 C. TURN IT DOWN BECAUSE YOUR OLD JOB IS EASIER.

+1 D. TAKE IT. THE JOB SOUNDS INTERESTING AND THE OPPORTUNITY IS WORTH THE CHANCE.

5. YOUR TEACHER HAS GIVEN YOU A SPECIAL ASSIGNMENT. IT INVOLVES SOLVING A TYPE OF PROBLEM THAT YOU HAVE NOT BEEN TAUGHT BEFORE. WHICH WOULD YOU DO?

+1 A. ASK THE TEACHER FOR DIRECTIONS ON SOLVING THE PROBLEM.

-1 B. COMPLAIN THAT YOU CAN'T DO IT.

+2 C. GO TO THE LIBRARY FOR HELP.

0 D. FAKE IT.

Continue to next page

PART II CONTINUED

6. YOUR FOLKS HAVE ALWAYS SAID THAT YOU SHOULD GO TO COLLEGE AFTER YOU GRADUATE. THE TROUBLE IS THAT YOU'VE NEVER BEEN A GOOD STUDENT AND DON'T ENJOY BOOKS OR STUDYING. YOU'VE CASUALLY MENTIONED THAT MAYBE YOU SHOULD STUDY TO GET A JOB AFTER YOU GRADUATE, BUT THEY DON'T EVEN WANT TO DISCUSS IT. WHAT WOULD YOU DO?

0 A. GO TO COLLEGE. IT'S THE ONLY WAY TO GET AHEAD.

+1 B. TALK WITH PEOPLE ABOUT THE VARIOUS JOBS THAT INTEREST YOU AND FIND OUT WHAT KIND OF TRAINING YOU NEED.

-1 C. WHY PLAN AHEAD! WHEN THE TIME COMES, YOU WON'T HAVE ANY CHOICE IN THE MATTER ANYHOW.

-1 D. FORGET SCHOOL AND GET A JOB NOW. YOUR FOLKS ARE BEING UNREASONABLE.

7. YOU HAVE JUST BEEN GIVEN A BIG ASSIGNMENT ON YOUR NEW JOB. IF YOU DO WELL, YOU WILL IMPRESS EVERYONE AND MAYBE GET A PROMOTION. IF YOU DON'T DO WELL, YOU MAY COST THE COMPANY A LOT OF MONEY. YOU'VE NEVER DONE ANYTHING LIKE IT BEFORE AND YOU'RE WORRIED ABOUT MAKING IT. WHAT WOULD YOU DO?

0 A. GET SICK FOR A WEEK. THAT WAY THEY'LL GIVE THE JOB TO SOMEONE ELSE AND YOU'LL BE OFF THE HOOK ALL THE WAY AROUND.

-1 B. TURN IT DOWN. WHY TAKE A CHANCE.

0 C. TAKE IT. YOU CAN FAKE IT AND MAKE A BIG IMPRESSION.

+1 D. TAKE IT, BUT GET ALL THE HELP YOU CAN.

Continue to next page

PART II CONTINUED

8. YOU HAVE DECIDED WHAT YOU REALLY WANT TO DO WITH YOUR LIFE. IT INVOLVES SEVERAL YEARS OF TRAINING. DURING THAT TIME YOU WON'T MAKE MUCH MONEY. MEANWHILE A BUDDY OF YOURS HAS DREAMED UP A SCHEME TO GO INTO BUSINESS AFTER GRADUATION. HIS DAD WILL PUT UP THE MONEY AND HE WANTS YOU TO BE HIS PARTNER. IN TERMS OF MONEY IT'S A PRETTY SURE THING, BUT IT'S IN A FIELD THAT DOESN'T INTEREST YOU MUCH. WHAT WOULD YOU DO?

+2 A. TELL YOUR FRIEND TO FORGET IT. YOU ALREADY KNOW WHAT YOU WANT TO DO.

+1 B. TELL HIM YOU ARE INTERESTED, BUT ONLY ON A PART-TIME BASIS.

-1 C. TELL HIM YOU'LL TAKE IT. MONEY IS MORE IMPORTANT AT THIS POINT.

0 D. TELL HIM YOU'LL THINK IT OVER. HIS PLANS AND YOURS MAY CHANGE BEFORE GRADUATION.

9. YOU ARRIVE AT YOUR FIRST CLASS IN THE MORNING AND YOUR TEACHER'S NOT THERE. THE SUBSTITUTE SAYS THAT YOU SHOULD CONTINUE WITH WHAT YOU STARTED YESTERDAY. THAT ASSIGNMENT IS DUE TO BE TURNED IN TOMORROW. WHAT WOULD YOU DO?

-1 A. LEAVE. WHY STICK AROUND FOR NOTHING?

-1 B. TALK WITH FRIENDS.

+1 C. DO THE ASSIGNMENT FOR THE CLASS.

+1 D. DO AN ASSIGNMENT FOR ANOTHER CLASS.

Continue to next page

10. MOST OF YOUR FRIENDS HAVE ALREADY DECIDED WHAT THEY WANT TO DO AFTER GRADUATION. YOU AREN'T SURE. IN FACT, YOU FIND THE WHOLE MESS EXTREMELY CONFUSING AND DEPRESSING. YOU'RE AN AVERAGE STUDENT AND SO FAR YOU'VE NOT DISCOVERED ANY VOCATION THAT YOU HAVE A REAL INTEREST IN OR TALENT FOR. WHAT WOULD YOU DO?

-1 A. HANG LOOSE. SOMETHING ALWAYS TURNS UP.

+1 B. GET SOME BOOKS ON DIFFERENT CAREERS. MAYBE YOU'LL FIND SOMETHING THAT INTERESTS YOU.

0 C. PUT OFF ANY DECISION UNTIL AFTER GRADUATION. THERE'S ALWAYS JUNIOR COLLEGE.

+1 D. ENROLL IN A VOCATIONAL COURSE THAT YOU THINK YOU MIGHT LIKE.

APPENDIX H

PROPOSED FINAL VERSION OF THE ATTITUDE SURVEY

INFORMATION SHEET

NAME_______________________________________DATE____________________________________

DATE OF BIRTH_______________________________HIGH SCHOOL____________________________

1. Who do you presently live with?

   A. Father & Mother

   B. Father

   C. Mother

   D. Other (Specify)__________________________

2. What is your Father's (or Legal Guardian's) occupation? (NOTE: NOT WHERE HE WORKS, BUT WHAT HE DOES.)____

3. What is your Mother's occupation? (NOTE: NOT WHERE SHE WORKS, BUT WHAT SHE DOES.)____

4. Do you plan to live at home after you graduate from High School?

   YES______ NO______

5. Do you presently plan to go to college after you graduate from High School?

   YES______ NO______

6. Do you expect to receive financial assistance from your parents?

   YES______ NO______

7. Write down the job you intend to get or field you intend to go into after High School graduation.____

   ____

Continue to next page

INSTRUCTIONS

THE FOLLOWING QUESTIONS RELATE TO YOUR OPINIONS ABOUT VARIOUS THINGS INVOLVING SCHOOL AND WORK. THIS SURVEY IS BEING GIVEN TO 10,000 HIGH SCHOOL JUNIORS IN THIS GENERAL AREA. THIS IS NOT A TEST. THERE ARE NO "RIGHT" OR "WRONG" ANSWERS. WE URGE YOU TO ANSWER EACH QUESTION AS HONESTLY AS POSSIBLE RELATED TO YOUR OPINIONS.

PLEASE READ THE INSTRUCTIONS FOR EACH PART OF THE SURVEY BEFORE PROCEEDING. THE SURVEY CONTAINS SEVERAL PARTS AND EACH PART REQUIRES A DIFFERENT KIND OF ANSWER. PUT YOUR NAME AT THE TOP OF EACH PAGE OF THE SURVEY. YOU MAY MARK YOUR ANSWERS ON THE QUESTION BOOKLET.

PART I:

THIS SECTION CONTAINS STATEMENTS. SOME OF THESE STATEMENTS ARE ABOUT THINGS YOU DO OR WOULD LIKE TO DO; OTHERS DESCRIBE YOUR OPINIONS.

--YOUR ANSWER FOR EACH STATEMENT WILL BE EITHER TRUE OR FALSE.

--IF A STATEMENT IS TRUE FOR YOU--IF IT DESCRIBES OR STATES WHAT YOU THINK OR BELIEVE, MARK THE ANSWER TRUE FOR THAT STATEMENT.

--IF A STATEMENT IS FALSE FOR YOU--IF IT DOES NOT DESCRIBE OR STATE WHAT YOU THINK OR BELIEVE, MARK THE ANSWER FALSE FOR THAT STATEMENT.

--THERE ARE NO RIGHT OR WRONG ANSWERS.

Continue to next page

PART I CONTINUED

T F 1. A boss shouldn't mind it when you come to work late if you stay late that night.

T F 2. I like to think about hard problems.

T F 3. I like do-it-yourself hobbies.

T F 4. My job hopes always get blasted.

T F 5. Getting the job done is more important than getting it done my way.

T F 6. I would like to work on a job where I had a chance to use new methods.

T F 7. It's hard for me to imagine what I'll be doing five years from now.

T F 8. I think a lot about new ideas.

T F 9. Hard workers are usually just afraid to loaf, for fear that the boss might catch them.

T F 10. I'd rather have a job that is interesting, even if I can do work that pays better.

T F 11. I enjoy work where I can figure out my own ways of doing things.

T F 12. The best part of any job is the coffee break.

T F 13. You have to know the right people to get ahead.

T F 14. I would work hard only if people gave me more credit for the work I did.

T F 15. I'd rather do things my own way than follow rules.

T F 16. I can't seem to get myself to do important things.

T F 17. I can't make myself do things that don't interest me.

T F 18. When I meet someone, I often think he is better than I am.

T F 19. I can't stick to the same task for long.

T F 20. I don't believe any job can be done well unless you follow the rules.

T F 21. I enjoy the competition of meeting deadlines.

T F 22. I have talked to people doing the kind of job I want.

T F 23. I've never been interested much in working.

T F 24. I wouldn't work for low pay even if it would give me experience that would help me get the job I want later.

T F 25. I can't seem to make up my mind about a job.

T F 26. I often wish that people didn't have to work for a living.

T F 27. I expect always to like whatever job I decide to take.

T F 28. I want easy money for dates and cars, that's about all.

Continue to next page

PART I CONTINUED

T F 29. I admire people who have good jobs.

T F 30. I have always known what kind of work I wanted to do in my life.

[✓ T] F 31. You have to stay in school to get a good job these days.

T F 32. If you want to get a good job, you must have some education.

T F 33. I have some hobbies now that will help me in the work I want.

T F 34. I'll work when I feel like it.

T F 35. I think we should just eat, drink and be merry, for tomorrow we die.

T F 36. I am good at finding excuses for breaking an appointment.

T F 37. You can't make plans for a job because you never know what is going to happen.

T F 38. With practice, I could handle any problem on a job.

T F 39. If I didn't get credit for the job I did, I would quit.

T F 40. I'm all mixed up about what I want out of life.

T F 41. If I couldn't find a job I liked within a couple of days, I'd stop looking.

T F 42. It is important to me to be able to use all of my knowledge on a job.

[✓ T] F 43. A good worker doesn't mind a strict boss.

T F 44. The best job is one that is routine.

T F 45. I don't want any job where I have to work overtime.

T F 46. I am good at getting ideas.

T F 47. I would learn a trade if I didn't have to do things by the book.

T F 48. I expect to be paid well or I won't work hard.

T F 49. I like work where I can do things in my own way.

T F 50. I never work too fast, because more will be expected of me next time.

T F 51. A job ties you down too much.

T F 52. It doesn't pay much to think for yourself on any job.

T F 53. If I didn't like a new job after two days, I'd quit.

T F 54. A person should never give up any pleasure for his job.

T F 55. I would change to any new job if the pay were better.

[✓ T] F 56. I find it hard to work under strict rules and regulations.

T F 57. I usually put off doing unpleasant tasks.

T F 58. If I needed a job badly, I would do any kind of work I could find.

Continue to next page

PART I CONTINUED

T F 59. Often when somebody tells me about their job, I try to imagine myself doing that job.

T F 60. It bothers me to have people tell me how to do something, even when I don't know.

T F 61. I would only take a job near home.

T F 62. I feel pretty good about my chances in life.

T F 63. Work is good only because it lets you buy the things you want.

T F 64. I expect to work as much as I can in my life.

T F 65. I wouldn't take a job if I had to get up very early in the morning.

T F 66. I like to read about people who do the kind of work I want to do.

T F 67. To get ahead on a job you have to do more work than others most of the time.

T F 68. I would take a long, hard course if it would prepare me for a good job.

T F 69. I would leave my home town to get a job I wanted.

T F 70. The person who has been honest and tried hard will have an easier time finding a job.

T F 71. It's not too hard to get a job if you have skill and are willing to work.

T F 72. Bosses usually promote their workers on the basis of ability.

T F 73. I know what I can do best.

T F 74. I can repeat a message accurately.

T F 75. I don't respect a person who can't keep a steady job.

T F 76. I never bothered to think about what I'll do with my life.

T F 77. I would play sick to get out of something.

T F 78. To become a leader on any job, you must know more than just your own work.

T F 79. I would like a job I don't have to pay much attention to.

T F 80. My job interests are always changing.

T F 81. Working is a bad way to spend your life.

Continue to next page

PART II:

THE FOLLOWING LIST INCLUDES ITEMS WHICH PEOPLE USUALLY LIKE OR DISLIKE.

--IF YOU DISLIKE AN ITEM, CIRCLE THE "D".

--IF YOU LIKE AN ITEM, CIRCLE THE "L".

--IF YOU DON'T CARE ONE WAY OR THE OTHER, CIRCLE THE "DC".

PLEASE ANSWER EVERY ITEM AND GIVE ONLY ONE ANSWER TO EACH ITEM. AGAIN, THERE ARE NO "RIGHT" OR "WRONG" ANSWERS.

		LIKE	DON'T CARE	DISLIKE
1.	BEING ON TIME	L	DC	D
2.	READING	L	DC	D
3.	FILMS IN CLASS	L	DC	D
4.	GOING TO COLLEGE	L	DC	D
5.	LAWS	L	DC	D
6.	TEXTBOOKS	L	DC	D
7.	GETTING A JOB	L	DC	D
8.	ADULTS	L	DC	D
9.	DOING HOMEWORK	L	DC	D
10.	SCHOOL	L	DC	D
11.	VOCATIONAL COURSES	L	DC	D
12.	STUDYING	L	DC	D
13.	WORKING FOR FREE	L	DC	D
14.	ASKING PERMISSION	L	DC	D

Continue to next page

PART II CONTINUED:

LIKE DON'T CARE DISLIKE

15. RULES---------------------------L--------------DC--------------D

16. MATHEMATICS---------------------L--------------DC--------------D

17. DOING THINGS MY OWN WAY---------L--------------DC--------------D

18. FIGURING THINGS OUT-------------L--------------DC--------------D

19. GETTING MARRIED-----------------L--------------DC--------------D

20. MAKING PLANS--------------------L--------------DC--------------D

21. GETTING PAID TO DO WHAT I LIKE--L--------------DC--------------D

22. TELLING PEOPLE WHAT TO DO-------L--------------DC--------------D

23. MOVING AWAY FROM HOME-----------L--------------DC--------------D

24. DOING THINGS I HAVE TO DO-------L--------------DC--------------D

25. HAVING CHILDREN-----------------L--------------DC--------------D

Continue to next page

PART IV:

PLEASE RATE YOURSELF ON THE FOLLOWING ITEMS. EACH ITEM IS FOLLOWED BY A SCALE FROM STRONGLY AGREE TO STRONGLY DISAGREE. IF YOU STRONGLY AGREE WITH AN ITEM, PUT AN "X" IN THE SPACE ABOVE "STRONGLY AGREE".

X				
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

IF YOU STRONGLY DISAGREE WITH AN ITEM, PUT AN "X" IN THE SPACE ABOVE "STRONGLY DISAGREE".

				X
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

IF YOU SIMPLY AGREE OR DISAGREE, BUT NOT STRONGLY, PUT AN "X" IN THE SPACE ABOVE ONE OF THESE. IF YOU ARE UNCERTAIN, INDICATE THIS IN YOUR ANSWER. PLEASE ANSWER EACH QUESTION. REMEMBER THERE ARE NO "RIGHT" OR "WRONG" ANSWERS!

1. I feel I have a number of good qualities.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

. At times I think that I am no good at all.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

3. I think it is very important that others think of me as responsible.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

4. I feel I do not have much to be proud of.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

5. Relative to others I know, I am above average.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

6. I feel I have much to be proud of.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

Continue to next page

PART IV CONTINUED:

7. I certainly feel useless at times.

Strongly Agree — Agree — Uncertain — Disagree — Strongly Disagree

8. On the whole, I am satisfied with myself.

Strongly Disagree — Disagree — Uncertain — Agree — Strongly Agree

9. I wish I could have more respect for myself.

Strongly Disagree — Disagree — Uncertain — Agree — Strongly Agree

10. I feel that I have a number of good qualities.

Strongly Agree — Agree — Uncertain — Disagree — Strongly Disagree

11. All in all, I am inclined to feel that I am a failure.

Strongly Disagree — Disagree — Uncertain — Agree — Strongly Agree

12. I am able to do things as well as most other people.

Strongly Agree — Agree — Uncertain — Disagree — Strongly Disagree

13. I feel it doesn't matter what happens to me.

Strongly Agree — Agree — Uncertain — Disagree — Strongly Disagree

14. I feel that I am a person of worth, at least on an equal plane with others.

Strongly Disagree — Disagree — Uncertain — Agree — Strongly Agree

15. I get blue for no reason.

Strongly Agree — Agree — Uncertain — Disagree — Strongly Disagree

16. I take a positive attitude toward myself.

Strongly Disagree — Disagree — Uncertain — Agree — Strongly Agree

17. Sometimes I don't think life is worth living.

Strongly Disagree — Disagree — Uncertain — Agree — Strongly Agree

. I know what kind of person I want to be.

Strongly Agree — Agree — Uncertain — Disagree — Strongly Disagree

Continue to next page

PART IV CONTINUED:

19. I feel pretty good about my chances in life.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

20. I feel left out of things in a group.

Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree

21. I have had more than my share of bad luck.

Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree

Continue to next page

PART III:

THE FOLLOWING PARAGRAPHS DESCRIBE VARIOUS SITUATIONS WHICH YOU MAY HAVE EXPERIENCED. AT THE END OF EACH SITUATION ARE A SERIES OF SOLUTIONS TO EACH SITUATION.

FIRST CHOOSE THE ANSWER WHICH BEST DESCRIBES WHAT YOU WOULD DO IF YOU WERE IN THAT SITUATION. MARK THIS CHOICE "1" IN THE SPACE PROVIDED IN FRONT OF THE ITEM.

THEN CHOOSE THE ANSWER WHICH DESCRIBES THE WORST SOLUTION TO THE SITUATION. MARK THAT CHOICE "4" IN THE SPACE PROVIDED IN FRONT OF THE ITEM.

REMEMBER "1" IS ALWAYS THE "BEST" SOLUTION AND "4" ALWAYS THE "WORST" SOLUTION. THERE ARE NO "RIGHT" ANSWERS.

1. YOUR TEACHER HAS GIVEN YOU A LIST OF PROJECTS FOR YOU TO WORK ON. YOU ARE TO SELECT ONE. NONE OF THEM LOOK TOO BAD. WHICH ONE WOULD YOU BE MOST INCLINED TO CHOOSE?

________A. ONE THAT SEEMS MOST INTERESTING.

________B. ONE THAT SEEMS EASIEST TO DO.

________C. ONE THAT SEEMS TO BE THE BIGGEST CHALLENGE.

________D. ONE THAT SHOULD MAKE THE BEST IMPRESSION ON YOUR TEACHER.

2. YOU HAVE BEEN WORKING AT A PLACE FOR ABOUT 6 MONTHS. THE WORK YOU ARE DOING IS INTERESTING TO YOU AND YOU HAVE BEEN DOING A GOOD JOB. ON MONDAY WHEN YOU COME TO WORK, YOU ARE INTRODUCED TO YOUR NEW BOSS. YOU'VE JUST BARELY MET HIM AND ALREADY HE'S ORDERING YOU AROUND. YOUR OLD BOSS NEVER ACTED THAT WAY. BESIDES, HE'S MAKING YOU DO THINGS YOU DON'T LIKE TO DO AND WEREN'T A PART OF YOUR JOB BEFORE. WHAT WOULD YOU DO?

________A. QUIT

________B. TELL HIM OFF

________C. WAIT IT OUT AND HOPE THINGS GO BACK TO NORMAL.

________D. TRY OUT YOUR NEW ASSIGNMENTS AND SEE IF YOU LIKE THEM AFTER YOU GET USED TO THEM.

3. YOU HAD NEVER REALLY TALKED ABOUT IT WITH YOUR FOLKS, BUT YOU HAD ALWAYS ASSUMED THAT AFTER HIGH SCHOOL THEY WOULD BE ABLE TO SEND YOU TO COLLEGE. YOUR GRADES ARE GOOD, BUT NOT THAT GREAT. YOUR PARENTS HAVE JUST TOLD YOU THAT THEY CAN'T POSSIBLY AFFORD TO SUPPORT YOU AFTER YOU GRADUATE FROM HIGH SCHOOL. IT MATTERS BECAUSE YOU'VE DECIDED WHAT YOU WANT TO BE AND IT REQUIRES A COLLEGE EDUCATION. WHAT WOULD YOU DO?

________A. TRY TO RAISE YOUR GRADE POINT AVERAGE SO YOU CAN GET A SCHOLARSHIP.

________B. GIVE UP COLLEGE AND START LOOKING FOR A FULL-TIME JOB AFTER YOU GRADUATE FROM HIGH SCHOOL.

________C. INVESTIGATE THE POSSIBILITY OF GOING TO COLLEGE DURING THE EVENINGS AND LOOK FOR A PART-TIME JOB.

________D. GET MAD AT YOUR FOLKS AND PLAN TO MOVE OUT AS SOON AS POSSIBLE.

Continue to next page

PART III CONTINUED:

4. YOU HAVE JUST BEEN TOLD THAT YOU HAVE A CHANCE TO LEARN A NEW TRADE AT THE EXPENSE OF THE COMPANY THAT YOU WORK FOR. THE FIELD IS BRAND NEW AND IT INVOLVES LEARNING A LOT OF NEW SKILLS. YOUR BOSS SEEMS TO THINK THAT YOU'LL DO WELL AT THE JOB. YOU'RE NOT SO SURE. WHAT WOULD YOU DO?

________A. GIVE IT A TRY. IF IT'S TOO HARD YOU CAN ASK FOR YOUR OLD JOB BACK.

________B. TURN IT DOWN. WHY BOTHER!

________C. TURN IT DOWN BECAUSE YOUR OLD JOB IS EASIER.

________D. TAKE IT. THE JOB SOUNDS INTERESTING AND THE OPPORTUNITY IS WORTH THE CHANCE.

5. YOUR TEACHER HAS GIVEN YOU A SPECIAL ASSIGNMENT. IT INVOLVES SOLVING A TYPE OF PROBLEM THAT YOU HAVE NOT BEEN TAUGHT BEFORE. WHICH WOULD YOU DO?

________A. ASK THE TEACHER FOR DIRECTIONS ON SOLVING THE PROBLEM.

________B. COMPLAIN THAT YOU CAN'T DO IT.

________C. GO TO THE LIBRARY FOR HELP.

________D. FAKE IT.

6. YOUR FOLKS HAVE ALWAYS SAID THAT YOU SHOULD GO TO COLLEGE AFTER YOU GRADUATE. THE TROUBLE IS THAT YOU'VE NEVER BEEN A GOOD STUDENT AND DON'T ENJOY BOOKS OR STUDYING. YOU'VE CASUALLY MENTIONED THAT MAYBE YOU SHOULD STUDY TO GET A JOB AFTER YOU GRADUATE, BUT THEY DON'T EVEN WANT TO DISCUSS IT. WHAT WOULD YOU DO?

________A. GO TO COLLEGE. IT'S THE ONLY WAY TO GET AHEAD ANYWAY.

________B. TALK WITH PEOPLE ABOUT THE VARIOUS JOBS THAT INTEREST YOU AND FIND OUT WHAT KIND OF TRAINING YOU NEED.

________C. WHY PLAN AHEAD! WHEN THE TIME COMES YOU WON'T HAVE ANY CHOICE IN THE MATTER ANYHOW.

_______ . FORGET SCHOOL AND GET A JOB NOW. YOUR FOLKS ARE BEING UNREASONABLE.

7. YOU HAVE JUST BEEN GIVEN A BIG ASSIGNMENT ON YOUR NEW JOB. IF YOU DO WELL, YOU WILL IMPRESS EVERYONE AND MAYBE GET A PROMOTION. IF YOU DON'T DO WELL, YOU MAY COST THE COMPANY A LOT OF MONEY. YOU'VE NEVER DONE ANYTHING LIKE IT BEFORE AND YOU'RE WORRIED ABOUT MAKING IT. WHAT WOULD YOU DO?

________A. GET SICK FOR A WEEK. THAT WAY THEY'LL GIVE THE JOB TO SOMEONE ELSE AND YOU'LL BE OFF THE HOOK ALL THE WAY AROUND.

________B. TURN IT DOWN. WHY TAKE A CHANCE.

________C. TAKE IT. YOU CAN FAKE IT AND MAKE A BIG IMPRESSION.

________D. TAKE IT, BUT GET ALL THE HELP YOU CAN.

Continue to next page

PART III CONTINUED:

8. YOU HAVE DECIDED WHAT YOU REALLY WANT TO DO WITH YOUR LIFE. IT INVOLVES SEVERAL YEARS OF TRAINING. DURING THAT TIME YOU WON'T MAKE MUCH MONEY. MEANWHILE A BUDDY OF YOURS HAS DREAMED UP A SCHEME TO GO INTO BUSINESS AFTER GRADUATION. HIS DAD WILL PUT UP THE MONEY AND WANTS YOU TO BE HIS PARTNER. IN TERMS OF MONEY IT'S A PRETTY SURE THING, BUT IT'S IN A ELD THAT DOESN'T INTEREST YOU MUCH. WHAT WOULD YOU DO?

________A. TELL YOUR FRIEND TO FORGET IT. YOU ALREADY KNOW WHAT YOU WANT TO DO.

________B. TELL HIM YOU ARE INTERESTED, BUT ONLY ON A PART-TIME BASIS. IT'LL BE A GOOD WAY TO MAKE MONEY WHILE YOU TRAIN FOR YOUR JOB.

________C. TELL HIM YOU'LL TAKE IT. MONEY IS MORE IMPORTANT AT THIS POINT.

________D. TELL HIM YOU'LL THINK IT OVER. HIS PLANS AND YOURS MAY CHANGE BEFORE GRADUATION.

9. YOU ARRIVE AT YOUR FIRST CLASS IN THE MORNING, AND YOUR TEACHER'S NOT THERE. NEITHER IS THE SUBSTITUTE. THERE'S A NOTE ON THE BOARD SAYING THE SUBSTITUTE IS LATE AND THE TEACHER IS SICK AND WON'T BE IN TODAY, BUT THAT YOU SHOULD CONTINUE WITH WHAT YOU STARTED YESTERDAY. THAT ASSIGNMENT IS DUE TO BE TURNED IN TOMORROW. WHAT WOULD YOU DO?

________A. LEAVE. WHY STICK AROUND FOR NOTHING?

________B. TALK WITH FRIENDS.

________C. DO THE ASSIGNMENT FOR THE CLASS.

________D. DO AN ASSIGNMENT FOR ANOTHER CLASS.

. MOST OF YOUR FRIENDS HAVE ALREADY DECIDED WHAT THEY WANT TO DO AFTER GRADUATION. YOU AREN'T SURE. IN FACT, YOU FIND THE WHOLE MESS EXTREMELY CONFUSING AND DEPRESSING. YOU'RE AN AVERAGE STUDENT AND SO FAR YOU'VE NOT DISCOVERED ANY VOCATION THAT YOU HAVE A REAL INTEREST IN OR TALENT FOR. WHAT WOULD YOU DO?

________A. HANG LOOSE. SOMETHING ALWAYS TURNS UP.

________B. GET SOME BOOKS ON DIFFERENT CAREERS. MAYBE YOU'LL FIND SOMETHING THAT INTERESTS YOU.

________C. PUT OFF ANY DECISION UNTIL AFTER GRADUATION. THERE'S ALWAYS JUNIOR COLLEGE.

________D. ENROLL IN A VOCATIONAL COURSE THAT YOU THINK YOU MIGHT LIKE.

Continue to next page

PART V:

APTITUDE INVENTORY

Check (✓) Subjects In Which You Have Received An A or B

English ___
Literature ___
Journalism ___
Speech ___
Other ___
Other ___
Math ___
Algebra ___
Business Math ___
General Math ___
Geometry ___
Trigonometry ___
Other ___
Other ___
Science ___
Earth Science ___
Life Science ___
Biology ___
Geology ___
Other ___
Other ___
Other ___
Social Studies ___
Geography ___
Government ___
History ___

Check (✓) Skills In Which You Feel You Deserve An A or B

Reading ___
Reporting ___
Speaking ___
Spelling ___
Memorizing ___
Writing ___
Adding ___
Subtracting ___
Multiplying ___
Dividing ___
Counting ___
Tabulating ___
Computing ___
Measuring ___
Calculating ___
Typing ___
Transcribing ___
Shorthand ___
Fractions ___
Other ___
Other ___
Other ___
Other ___
Other ___
Other ___

Check (✓) Performing Areas Where You Have Received an A or B

Auto Shop ___
Electric Shop ___
Machine Shop ___
Wood Shop ___
Drafting ___
Crafts ___
Other ___
Other ___
Other ___
Musical Instrument ___
Choir ___
Glee ___
Theater ___
Other ___
Other ___
Physical Education ___
Baseball ___
Basketball ___
Cross Country ___
Football ___
Golf ___
Swimming ___
Tennis ___
Track ___
Other ___
Other ___
Other ___

Check (✓) Hobbies In Which You Participate

Coins ___
Photography ___
Knitting ___
Sewing ___
Stamps ___
Other ___
Other ___
Other ___
Other ___

List (below) Any Job(s) You Have Held

___
___
___
___

Continue to next page

APPENDIX I

FINAL APPROVED VERSION OF ATTITUDE SURVEY

INFORMATION SURVEY

NAME________________________________ DATE________________________________

DATE OF BIRTH_______________________ HIGH SCHOOL________________________

WRITE DOWN THE JOB YOU INTEND TO GET OR FIELD YOU INTEND TO GO INTO AFTER HIGH SCHOOL GRADUATION.________________________________

____

HAVE YOU EVER HAD A JOB?_____________

DOING WHAT?____

PART I:

THE FOLLOWING SECTION CONTAINS STATEMENTS. SOME OF THESE STATEMENTS ARE ABOUT THINGS YOU DO OR WOULD LIKE TO DO; OTHERS DESCRIBE YOUR OPINIONS.

--YOUR ANSWER FOR EACH STATEMENT WILL BE EITHER TRUE OR FALSE.

--IF A STATEMENT IS TRUE FOR YOU--IF IT DESCRIBES OR STATES WHAT YOU THINK OR BELIEVE, MARK THE ANSWER TRUE FOR THAT STATEMENT.

--IF A STATEMENT IS FALSE FOR YOU--IF IT DOES NOT DESCRIBE OR STATE WHAT YOU THINK OR BELIEVE, MARK THE ANSWER FALSE FOR THAT STATEMENT.

--THERE ARE NO RIGHT OR WRONG ANSWERS.

Continue to next page

PART I CONTINUED

T F 1. A boss shouldn't mind it when you come to work late if you stay late that night.

T F 2. I like to think about hard problems.

T F 3. I like do-it-yourself hobbies.

T F 4. My job hopes always get blasted.

T F 5. I would like to work on a job where I had a chance to use new methods.

T F 6. Hard workers are usually just afraid to loaf, for fear that the boss might catch them.

T F 7. I'd rather have a job that is interesting, even if I can do work that pays better.

T F 8. I enjoy work where I can figure out my own ways of doing things.

T F 9. I'd rather do things my own way than follow rules.

T F 10. I can't seem to get myself to do important things.

T F 11. I can't make myself do things that don't interest me.

T F 12. When I meet someone, I often think he is better than I am.

T F 13. I don't believe any job can be done well unless you follow the rules.

T F 14. I have talked to people doing the kind of job I want.

T F 15. I can't seem to make up my mind about a job.

T F 16. I often wish that people didn't have to work for a living.

T F 17. I expect always to like whatever job I decide to take.

T F 18. I want easy money for dates and cars, that's about all.

T F 19. I admire people who have good jobs.

T F 20. You have to stay in school to get a good job these days.

T F 21. If you want to get a good job, you must have some education.

T F 22. I have some hobbies now that will help me in the work I want.

T F 23. I'll work when I feel like it.

T F 24. I think we should just eat, drink and be merry, for tomorrow we die.

T F 25. You can't make plans for a job because you never know what is going to happen.

Continue to next page

PART I CONTINUED

T F 26. If I couldn't find a job I liked within a couple of days, I'd stop looking.

T F 27 A good worker doesn't mind a strict boss.

T F 28. The best job is one that is routine.

T F 29. I don't want any job where I have to work overtime.

T F 30. I am good at getting ideas.

T F 31. I expect to be paid well or I won't work hard.

T F 32. I like work where I can do things in my own way.

T F 33. It doesn't pay much to think for yourself on any job.

T F 34. A person should never give up any pleasure for his job.

T F 35. I would change to any new job if the pay were better.

T F 36. I find it hard to work under strict rules and regulations.

T F 37. If I needed a job badly, I would do any kind of work I could find.

T F 38. Often when somebody tells me about their job, I try to imagine myself doing that job.

T F 39. I expect to work as much as I can in my life.

T F 40. I wouldn't take a job if I had to get up very early in the morning.

T F 41. I like to read about people who do the kind of work I want to do.

T F 42. I would take a long, hard course if it would prepare me for a good job.

T F 43. I would leave my home town to get a job I wanted.

T F 44. It's not too hard to get a job if you have skill and are willing to work.

T F 45. I know what I can do best.

T F 46. I don't respect a person who can't keep a steady job.

T F 47. I never bothered to think about what I'll do with my life.

T F 48. I would play sick to get out of something.

T F 49. I would like a job I don't have to pay much attention to.

T F 50. My job interests are always changing.

Continue to next page

PART II

THE FOLLOWING PARAGRAPHS DESCRIBE VARIOUS SITUATIONS WHICH YOU MAY HAVE EXPERIENCED. AT THE END OF EACH SITUATION ARE A SERIES OF SOLUTIONS TO EACH SITUATION.

FIRST CHOOSE THE ANSWER WHICH BEST DESCRIBES WHAT YOU WOULD DO IF YOU WERE IN THAT SITUATION. MARK THIS CHOICE "1" IN THE SPACE PROVIDED IN FRONT OF THE ITEM.

THEN CHOOSE THE ANSWER WHICH DESCRIBES THE WORST SOLUTION TO THE SITUATION. MARK THAT CHOICE "4" IN THE SPACE PROVIDED IN FRONT OF THE ITEM.

REMEMBER "1" IS ALWAYS THE "BEST" SOLUTION AND "4" ALWAYS THE "WORST" SOLUTION. THERE ARE NO "RIGHT" ANSWERS.

1. YOUR TEACHER HAS GIVEN YOU A LIST OF PROJECTS FOR YOU TO WORK ON. YOU ARE TO SELECT ONE. NONE OF THEM LOOK TOO BAD. WHICH ONE WOULD YOU BE MOST INCLINED TO CHOOSE?

_____A. ONE THAT SEEMS MOST INTERESTING.

_____B. ONE THAT SEEMS EASIEST TO DO.

_____C. ONE THAT SEEMS TO BE THE BIGGEST CHALLENGE.

_____D. ONE THAT SHOULD MAKE THE BEST IMPRESSION ON YOUR TEACHER.

2. YOU HAVE BEEN WORKING AT A PLACE FOR ABOUT 6 MONTHS. THE WORK YOU ARE DOING IS INTERESTING TO YOU AND YOU HAVE BEEN DOING A GOOD JOB. ON MONDAY WHEN YOU COME TO WORK, YOU ARE INTRODUCED TO YOUR NEW BOSS. YOU'VE JUST BARELY MET HIM AND ALREADY HE'S ORDERING YOU AROUND. YOUR OLD BOSS NEVER ACTED THAT WAY. BESIDES, HE'S MAKING YOU DO THINGS YOU DON'T LIKE TO DO AND WEREN'T A PART OF YOUR JOB BEFORE. WHAT WOULD YOU DO?

_____A. QUIT.

_____B. TELL HIM OFF.

_____C. WAIT IT OUT AND HOPE THINGS GO BACK TO NORMAL.

_____D. TRY OUT YOUR NEW ASSIGNMENTS AND SEE IF YOU LIKE THEM AFTER YOU GET USED TO THEM.

Continue to next page

PART II CONTINUED

3. YOU HAD NEVER REALLY TALKED ABOUT IT WITH YOUR FOLKS, BUT YOU HAD ALWAYS ASSUMED THAT AFTER HIGH SCHOOL THEY WOULD BE ABLE TO SEND YOU TO COLLEGE. YOUR GRADES ARE GOOD, BUT NOT THAT GREAT. YOUR PARENTS HAVE JUST TOLD YOU THAT THEY CAN'T POSSIBLY AFFORD TO SUPPORT YOU AFTER YOU GRADUATE FROM HIGH SCHOOL. IT MATTERS BECAUSE YOU'VE DECIDED WHAT YOU WANT TO BE AND IT REQUIRES A COLLEGE EDUCATION. WHAT WOULD YOU DO?

_____A. TRY TO RAISE YOUR GRADE POINT AVERAGE SO YOU CAN GET A SCHOLARSHIP.

_____B. GIVE UP COLLEGE AND START LOOKING FOR A FULL-TIME JOB AFTER YOU GRADUATE FROM HIGH SCHOOL.

_____C. INVESTIGATE THE POSSIBILITY OF GOING TO COLLEGE DURING THE EVENINGS AND LOOK FOR A PART-TIME JOB.

_____D. GET MAD AT YOUR FOLKS AND PLAN TO MOVE OUT AS SOON AS POSSIBLE.

4. YOU HAVE JUST BEEN TOLD THAT YOU HAVE A CHANCE TO LEARN A NEW TRADE AT THE EXPENSE OF THE COMPANY THAT YOU WORK FOR. THE FIELD IS BRAND NEW AND IT INVOLVES LEARNING A LOT OF NEW SKILLS. YOUR BOSS SEEMS TO THINK THAT YOU'LL DO WELL AT THE JOB. YOU'RE NOT SO SURE. WHAT WOULD YOU DO?

_____A. GIVE IT A TRY. IT IT'S TOO HARD, YOU CAN ASK FOR YOUR OLD JOB BACK.

_____B. TURN IT DOWN. WHY BOTHER!

_____C. TURN IT DOWN BECAUSE YOUR OLD JOB IS EASIER.

_____D. TAKE IT. THE JOB SOUNDS INTERESTING AND THE OPPORTUNITY IS WORTH THE CHANCE.

5. YOUR TEACHER HAS GIVEN YOU A SPECIAL ASSIGNMENT. IT INVOLVES SOLVING A TYPE OF PROBLEM THAT YOU HAVE NOT BEEN TAUGHT BEFORE. WHICH WOULD YOU DO?

_____A. ASK THE TEACHER FOR DIRECTIONS ON SOLVING THE PROBLEM.

_____B. COMPLAIN THAT YOU CAN'T DO IT.

_____C. GO TO THE LIBRARY FOR HELP.

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Continue to next page

PART II CONTINUED

6. YOUR FOLKS HAVE ALWAYS SAID THAT YOU SHOULD GO TO COLLEGE AFTER YOU GRADUATE. THE TROUBLE IS THAT YOU'VE NEVER BEEN A GOOD STUDENT AND DON'T ENJOY BOOKS OR STUDYING. YOU'VE CASUALLY MENTIONED THAT MAYBE YOU SHOULD STUDY TO GET A JOB AFTER YOU GRADUATE, BUT THEY DON'T EVEN WANT TO DISCUSS IT. WHAT WOULD YOU DO?

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______C. WHY PLAN AHEAD! WHEN THE TIME COMES, YOU WON'T HAVE ANY CHOICE IN THE MATTER ANYHOW.

______D. FORGET SCHOOL AND GET A JOB NOW. YOUR FOLKS ARE BEING UNREASONABLE.

7. YOU HAVE JUST BEEN GIVEN A BIG ASSIGNMENT ON YOUR NEW JOB. IF YOU DO WELL, YOU WILL IMPRESS EVERYONE AND MAYBE GET A PROMOTION. IF YOU DON'T DO WELL, YOU MAY COST THE COMPANY A LOT OF MONEY. YOU'VE NEVER DONE ANYTHING LIKE IT BEFORE AND YOU'RE WORRIED ABOUT MAKING IT. WHAT WOULD YOU DO?

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Continue to next page

PART II CONTINUED

8. YOU HAVE DECIDED WHAT YOU REALLY WANT TO DO WITH YOUR LIFE. IT INVOLVES SEVERAL YEARS OF TRAINING. DURING THAT TIME YOU WON'T MAKE MUCH MONEY. MEANWHILE A BUDDY OF YOURS HAS DREAMED UP A SCHEME TO GO INTO BUSINESS AFTER GRADUATION. HIS DAD WILL PUT UP THE MONEY AND HE WANTS YOU TO BE HIS PARTNER. IN TERMS OF MONEY IT'S A PRETTY SURE THING, BUT IT'S IN A FIELD THAT DOESN'T INTEREST YOU MUCH. WHAT WOULD YOU DO?

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_____D. TELL HIM YOU'LL THINK IT OVER. HIS PLANS AND YOURS MAY CHANGE BEFORE GRADUATION.

9. YOU ARRIVE AT YOUR FIRST CLASS IN THE MORNING AND YOUR TEACHER'S NOT THERE. THE SUBSTITUTE SAYS THAT YOU SHOULD CONTINUE WITH WHAT YOU STARTED YESTERDAY. THAT ASSIGNMENT IS DUE TO BE TURNED IN TOMORROW. WHAT WOULD YOU DO?

_____A. LEAVE. WHY STICK AROUND FOR NOTHING?

_____B. TALK WITH FRIENDS.

_____C. DO THE ASSIGNMENT FOR THE CLASS.

_____D. DO AN ASSIGNMENT FOR ANOTHER CLASS.

Continue to next page

PART II CONTINUED

10. MOST OF YOUR FRIENDS HAVE ALREADY DECIDED WHAT THEY WANT TO DO AFTER GRADUATION. YOU AREN'T SURE. IN FACT, YOU FIND THE WHOLE MESS EXTREMELY CONFUSING AND DEPRESSING. YOU'RE AN AVERAGE STUDENT AND SO FAR YOU'VE NOT DISCOVERED ANY VOCATION THAT YOU HAVE A REAL INTEREST IN OR TALENT FOR. WHAT WOULD YOU DO?

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______C. PUT OFF ANY DECISION UNTIL AFTER GRADUATION. THERE'S ALWAYS JUNIOR COLLEGE.

______D. ENROLL IN A VOCATIONAL COURSE THAT YOU THINK YOU MIGHT LIKE.

APPENDIX J

SAMPLE LETTER OF INTRODUCTION FOR FIELD WORKERS

Southern California
REGIONAL OCCUPATIONAL CENTER
2300 CRENSHAW BOULEVARD · TORRANCE, CALIFORNIA 90501 · TELEPHONE (213) 320-6700

October 5, 1971

TO WHOM IT MAY CONCERN

This letter is to introduce Mrs. Caroline Dold, who is presently employed by the Southern California Regional Occupational Center as a Field Worker. Mrs. Dold is working on a Title I grant which the Center has received to investigate the effects of our career opportunity programs.

Her assignment is to collect data on grade point averages, ability and achievement test scores for each Junior enrolled at your school.

We would appreciate your cooperation in providing Mrs. Dold with access to the student cum folders so that she may obtain the necessary information. We trust that this will not be too great an inconvenience for you or your staff.

If you have any further questions regarding Mrs. Dold's assignment or authorization to acquire this data, please feel free to contact Mr. Haig Marashlian, Director of Planning and Development, at the Center 320-6700 Extension 22.

Thank you for your help in this matter.

Sincerely

Wayne L. Butterbaugh

Wayne L. Butterbaugh, Superintendent

JCB/kd

PARTICIPATING DISTRICTS
Centinela Valley Union High School District
El Segundo Unified School District
Inglewood Unified School District
Palos Verdes Peninsula Unified School District
South Bay Union High School District
Torrance Unified School District

APPENDIX K

INSTRUCTIONS TO THE TEACHER ADMINISTERING THE SURVEY

TO THE TEACHER ADMINISTERING THE SURVEY:

1. This survey is one part of a VEA Title I Research Project which was granted to the Southern California Regional Occupational Center. The overall purpose of the Project is to investigate the parameters of the Career Guidance Program as it effects student course selection at the Center.

2. The average time it takes a student to complete the survey is 15-20 minutes.

3. Instructions for both Part I and Part II are contained within the survey.

4. However we have found that many students do not pay enough attention to the instructions for Part II to answer the questions properly. Therefore, tell your students that when they get to Part II, two responses are required for each of the 10 questions. They must mark the best solution with the number "1" and also must mark the worst solution with the number "4".

5. To avoid producing a response set on the part of the students, we do not wish the survey to be identified with the Occupational Center prior to administration.

THANK YOU FOR YOUR COOPERATION!

APPENDIX L

CARD CODING AND FORMAT

FIRST CARD

Column 1--Card Number
2--District Number
3,4--High School Number
5-8--Student Identification Number
9--SCROC=1
NON=SCROC=2
10--SCROC Session 1=AM, 2=PM, 3=4-7
11,12--SCROC Course Number
13--SEX 1=Male 2=Female
14-17--AGE in years and months through January 1972
18,19--GPA Percentile
20-21--GPAR Percentile
22-23--ACH. Percentile
24-25--APT. Percentile
26--Curriculum 1=General 2=College Prep
27--Typing 1=Yes 2=No
28-77--1=True, 0=False, 2=Both, 9=Blank
78--Grade 3=Senior, 2=Junior, 1=Sophomore
79-80--Total True-False Questions

SECOND CARD

1-9--Same as card #1
10--Blank
11-70--Second Part of Survey
71-73--Total Score Second Part of Survey
74--Occupational Field
1=Professional
2=Technical
3=Managers, Officials, Proprietors
4=Clerical and Sales
5=Craftsman or Foreman
6=Operators
7=Service, Salesperson
8=Laborers
0=Undecided
75--Has held a job, 1=Yes, 2=No, 9=No Answer

THIRD CARD

1-9	Same as first two cards
10-26	Career Opportunity Programs viewed at home school
27-28	First Course choice
29-30	Second Course choice
31-32	Course student enrolled in
33-35	First Semester Performance Percentage
36-38	Second Semester Performance Percentage
39-41	Total Percentage for school year

APPENDIX M

ENTRY LEVEL SKILLS FOR CENTER INSTRUCTIONAL PROGRAMS AS DERIVED FROM THE DICTIONARY OF OCCUPATIONAL TITLES

ADMISSION CRITERIA ESSENTIAL TO OCCUPATIONAL TRAINING SKILLS

	Physical	Manual Dexterity	Finger Dexterity	Auditory	Visual	Visual Motor	Social Skills	Verbal	Numerical	Health Spec.	Reading = FROM +	Arithmetic = FROM +
Data Processing Programming		X	X	X	X	X		X	X		Prog. 12+	Prog. 12+
Tab		X	X	X	X	X		X	X		Tab 6+	Tab + x ÷
Keypunch		X	X		X	X					Copy 6+	Recognize Symbols
Business Procedures		X	X	X	X	X	X	X	X		Clerk 6+ Secry. 10+	Clerk 8 Secry. 10
Dental Assisting	X	X	X	X	X	X	X	X	X	X	8+	8 Bus., Arith.
Medical Assisting	X	X	X	X	X	X	X	X	X	X	8+	8 Bus., Arith.
Major Applia. Rpr.	X	X	X		X	X			X		2 Recognize Symbols	Fund + X ÷ 5:0
Elect. Assembly	X	X	X		X	X			X		2 Recognize Symbols	Fund + - x
Off Bus. Mach. Serv.	X	X	X		X	X			X		4 Suprv. 8 Un-Suprv.	Fund Bus. Arith.
Radio & TV Service	X	X	X	X	X	X			X		8+	Fund Bus. Arith.
Mach. Tool Oper.	X	X	X		X	X			X		4+	Recognize Symbols Deci. %
Welding	X	X	X		X	X			X		2 + Recognize Symbols	Fund + - x ÷ Deci.
Auto Body Repair	X	X			X	X					2 Recognize Symbols	+ - x ÷
Auto Tune-Up	X	X	X	X	X	X		X	X		6+	% ages Deci. 8

ADMISSION CRITERIA ESSENTIAL TO OCCUPATIONAL TRAINING SKILLS (CONTINUED)

	Physical	Manual Dexterity	Finger Dexterity	Auditory	Visual	Visual Motor	Social Skills	Verbal	Numerical	Health Spec.	Reading = FROM +	Arithmetic = FROM ÷
Auto Parts	X	X		X	X			X	X		8+	Bus.Arith. 8
Auto Painting	X	X			X	X					2+	Fund + - x ÷
Transmission Repair	X	X	X			X	X				2+	Fund deci.
Brakes & Front End	X	X			X	X					2+	Fund + - x ÷
Auto Diagnosis	X	X	X	X	X	X		X	X		8+	8% & deci.
Power Mechanics	X	X	X	X	X	X					2+	%tage deci.